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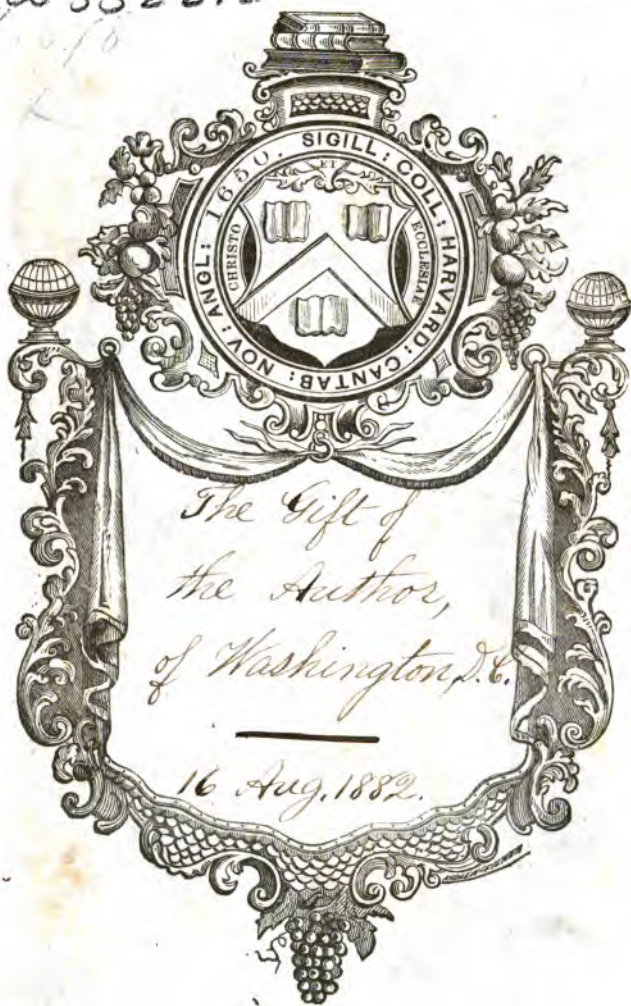
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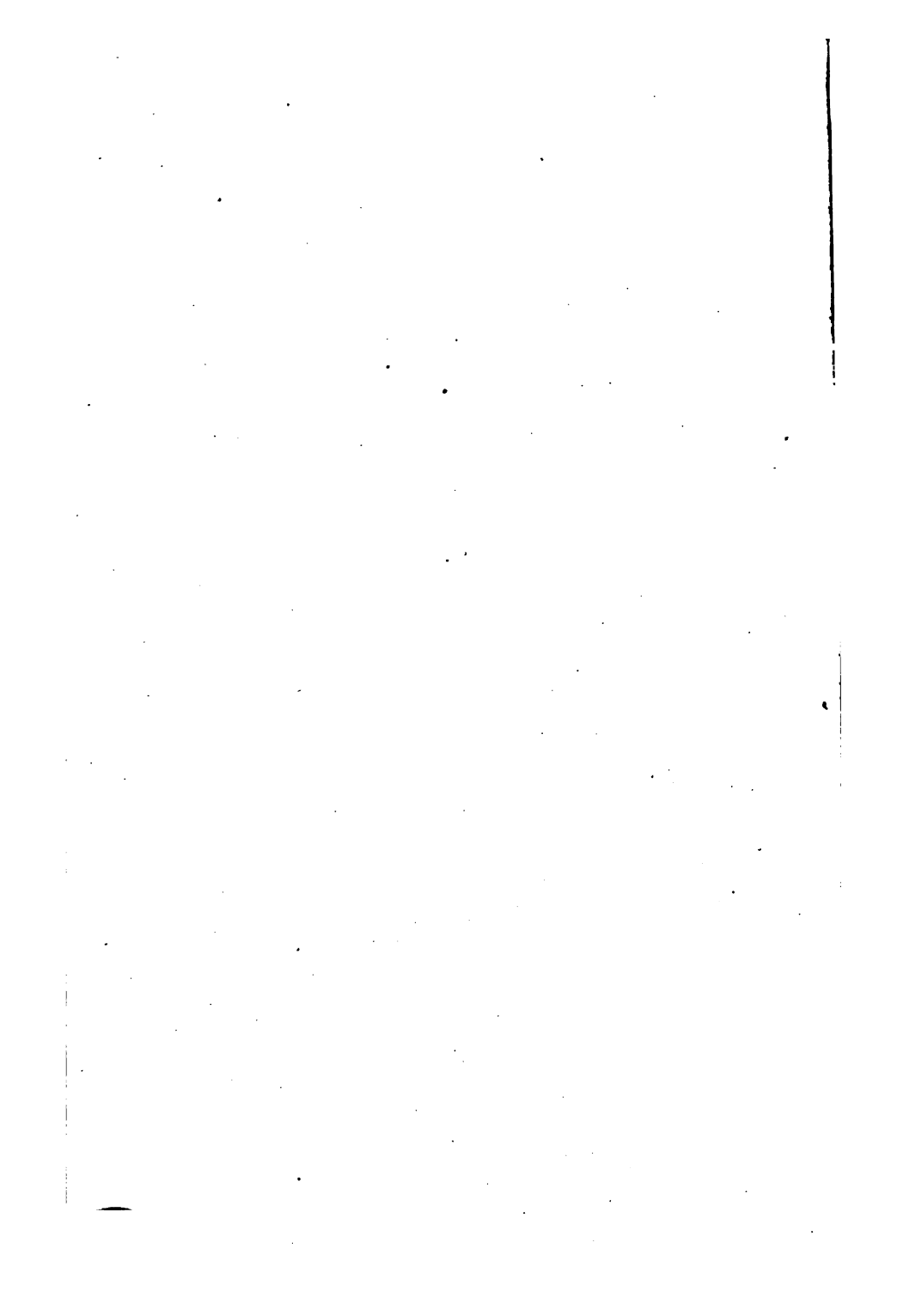
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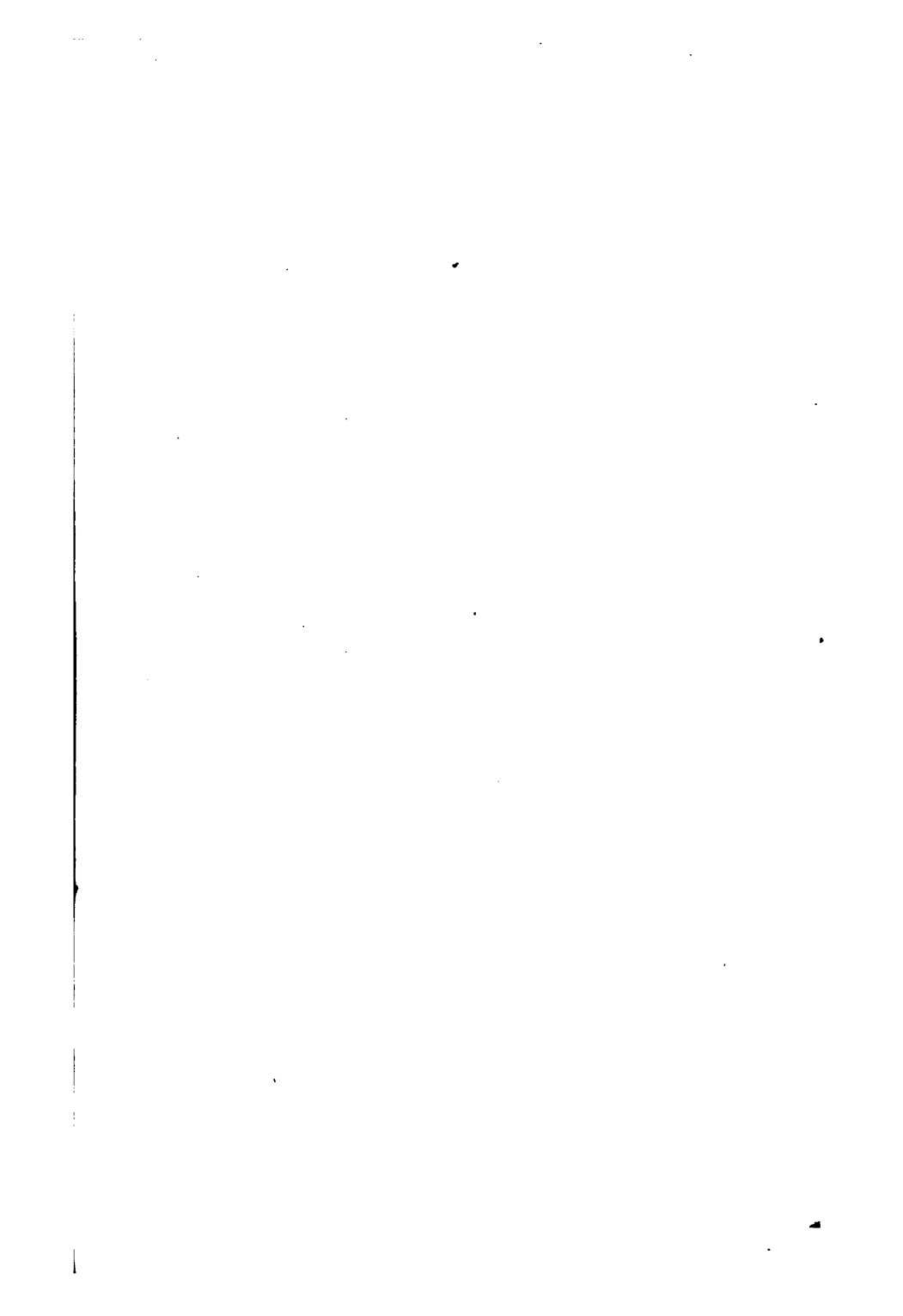
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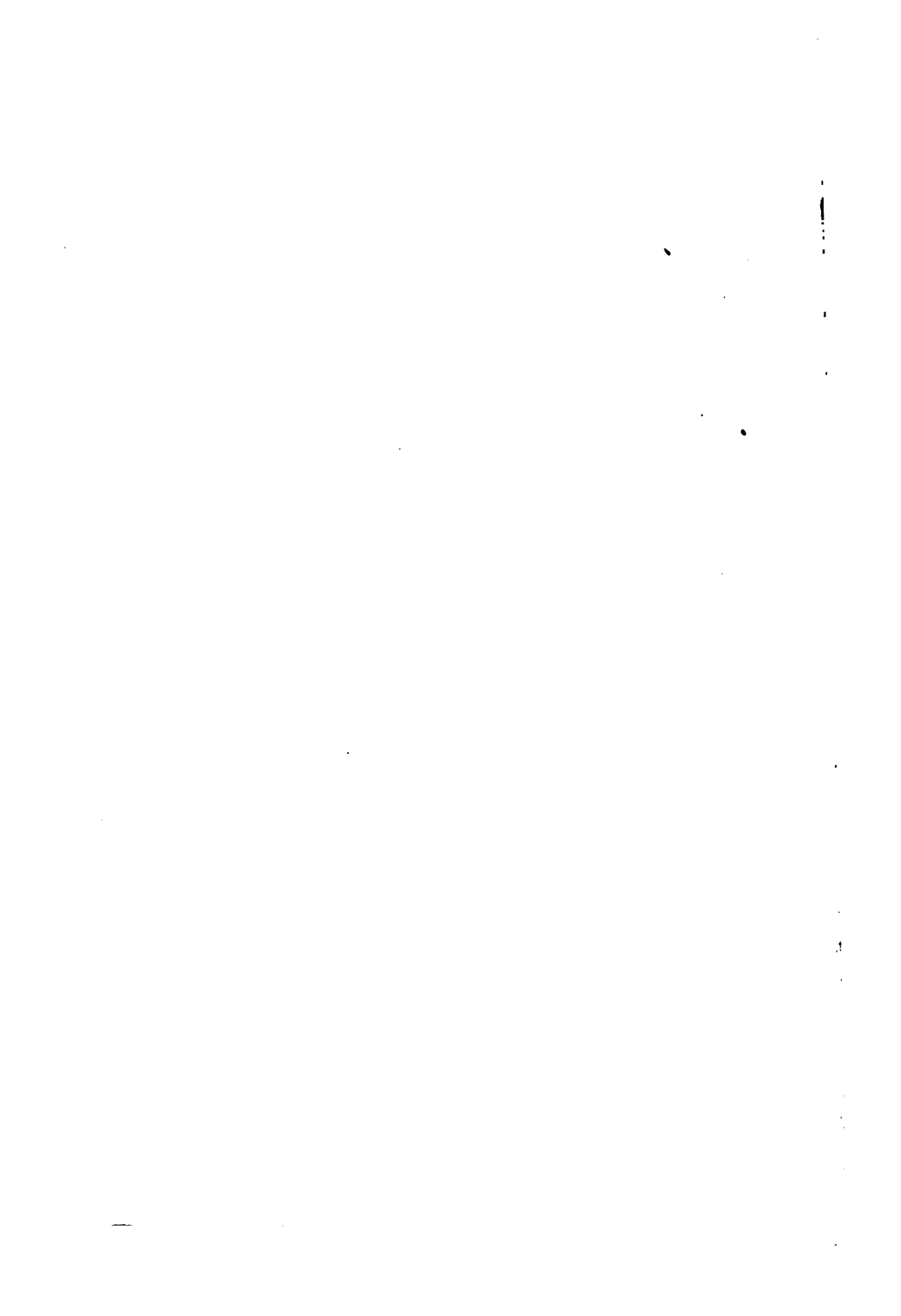
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ADDRESS
BEFORE THE
ROCKY MOUNTAIN
MEDICAL ASSOCIATION

JUNE 6, 1877

CONTAINING
SOME OBSERVATIONS
ON THE
GEOLOGICAL AGE OF THE WORLD

THE APPEARANCE OF ANIMAL LIFE UPON THE
GLOBE, THE ANTIQUITY OF MAN, AND THE ARCHÆOLOGICAL
REMAINS OF EXTINCT RACES FOUND ON THE AMERICAN CONTINENT,
WITH VIEWS OF THE ORIGIN AND PRACTICE OF MEDICINE
AMONG UNCIVILIZED RACES, MORE ESPECIALLY
THE NORTH AMERICAN
INDIANS

TO WHICH IS APPENDED A
SYNOPSIS OF THE PREVIOUS ADDRESSES
AND ALSO
BIOGRAPHIES OF THE MEMBERS
OF THE ASSOCIATION.

Joseph Herodotus
J. M. TONER, M. D.

WASHINGTON, D. C.
PUBLISHED FOR THE ASSOCIATION
1877.

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1882. Aug. 16,

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INTRODUCTION.

THE Rocky Mountain Medical Association had its origin in a desire to perpetuate and keep fresh the friendships formed among the physicians who actually crossed the Rocky Mountains to attend the meeting of the American Medical Association in San Francisco, California, in May, 1871. On that occasion there were one hundred and twenty-three physicians who traversed the Continent for this purpose, all of whom have been constituted members of the Association. The ladies of the party and a few non-professional gentlemen who were in the company are recognized as honorary members. The organization is entirely social and memorial in its character. It meets annually at the same time and place as the American Medical Association. Immediately after Dr. Toner's address, at Chicago, in 1877, a resolution was passed that it and the accompanying biographical sketches of the members be published by the Society. The committee appointed for that purpose takes pleasure in presenting to the members of the Rocky Mountain Medical Association this admirable discourse and desirable record in a handsome memorial volume as an appropriate souvenir of friendship. And in collecting and appending an abstract of all the proceedings and addresses since this Association was instituted, we conceive that we are complying with a very general wish of the members.

Committee on Publication :—

N. S. DAVIS, M. D.,
J. MORRIS, M. D.

PRESIDENTS
OF THE
ROCKY MOUNTAIN MEDICAL ASSOCIATION.

W. L. ATLEE, M. D.,	1872-1873
B. H. CATLIN, M. D.,	1874
G. W. MEARS, M. D.,	1875
B. GILLETT, M. D.,	1876
J. M. TONER, M. D.,	1877
N. S. DAVIS, M. D.,	1878

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ADDRESS.

GENTLEMEN OF THE

ROCKY MOUNTAIN MEDICAL ASSOCIATION:

It has been our privilege to meet this year in the inland metropolis of the United States, the city of Chicago, one of the greatest marvels presented in history. Located but half a century ago, deep within the western wilds, on the hunting-grounds of the red man, not only in its sudden rise and commercial importance did it seem more like enchantment than the work of man, but when a mighty conflagration had almost extinguished its early greatness, rising Phoenix-like from its ashes, it has shown even more conclusively in its restoration and increased grandeur the irresistible energy and enterprise of its people.* It is fitting at

*The first United States military post was established at Chicago in 1804. Settlers began to locate around the fort shortly after the close of the war of 1812.

The city of Chicago was incorporated in 1837. Its population had reached 298,977 in 1870. The most disastrous conflagration of modern times took place there on the 8th and 9th of October, 1871. The fire fiend raged uncontrolled for thirty-six hours, in the heart of the city, and burned over 2,124 acres, equal to nearly three and one-third square miles—destroying 17,450 buildings, the homes and possessions of 98,500 people. Property to the value of \$196,000,000 was destroyed. Relief sent to the sufferers from all parts of the world exceeded \$7,000,000, and 8,000 temporary buildings were erected by the relief committee to shelter the homeless, who were supplied with food by the

the beginning of the second century of our national independence that this city, so typical of American progress, and at the same time the adopted home of the Father* of the American Medical Association, should be the meeting-place of the society which he originated, and which he has watched over with such rare fidelity and judgment, until it has become a beacon that may guide and ethically enlighten every physician of the country who desires to earn honorable distinction and promote the dignity of the profession.

The organization which assembles us this evening is, as you know, an emanation of the heart, and is alone social and memorial in its purpose, and owes its existence to the friendships formed among the physicians residing east of the Rocky Mountains who in 1871 attended the meeting of the American Medical Association in the city of San Francisco.

We had often read and heard the expression, "from the Atlantic to the Pacific Ocean," when it was desired to emphasize the extent and resources of our country. On that occasion we realized the import of this expression, but never until then did we comprehend it in its fullness. To most of us, busy, hard-worked physicians, the rest of a month or more from professional duties, with an opportunity for even a casual inspection of some of the more notable topographical features of the United States, such as its great mountain ranges, its water-courses, and particularly its extensive table-

authorities. The city has now entirely recovered, has a larger trade than ever, and many millions more of assessed property than before the fire.

* N. S. Davis, M. D.

lands, was a circumstance of interest. From the Atlantic coast, across the Alleghany Mountains, until we reached Chicago, the eye was chiefly employed in observing the improvement in agricultural and rural residences, the growth of villages, and the founding of prosperous towns and cities. From Chicago to the crossing of the Missouri River, at Council Bluffs, the broad prairies, the numerous water-courses, the busy mills, the growing towns, the opening farms and new settlements, commanded our utmost attention. Up the Platte River from Omaha, across the Rocky and the Wahsatch Mountains, through the Weber Cañon, traversing the valleys of Utah and the Humboldt, through many tunnels, across numerous bridges, and under miles of snow-sheds, and over the Sierra Nevada range, before entering the valley of the Sacramento—throughout all this journey the works of man, though considerable, seemed insignificant, when compared with the broad expanse of unoccupied country spread out on all sides to a seemingly boundless extent. From the city of Sacramento to San Francisco new settlements were constantly in view, and much of the land was under cultivation.

In California, a community but a quarter of a century old, we met resident brethren of high culture and marked professional ability, and we found medical institutions, which though young, yet, through the talent and energy brought to their support, might well bear comparison with those of similar character in the older States of the Union. There, too, we met *confrères* from twenty-four States and Territories lying east of the Rocky Mountains, and all were welcomed

as friends by the warm-hearted and generous physicians of California.

To those who had traveled but little, the extent of unoccupied territory traversed in crossing the continent was truly surprising. Fortunately, the journey was not only performed in luxurious palace-cars, but it was made without interruption or accident, and in the company of cultivated persons, thus giving ample leisure to make observations and to exchange views and reflections. The tediousness which ordinarily attends such a journey was in this instance entirely absent, owing to the presence of so many charming ladies, the wives and daughters of physicians. I but express the general sentiment when I acknowledge our great indebtedness to the ladies for much of the pleasure of the trip.*

* All the ladies who accompanied physicians to California have been accepted as honorary members of the Rocky Mountain Medical Association. A few gentlemen, not physicians, who traveled in company with us were also accepted as honorary members. The following list contains the names and residences of most, if not all, the ladies. If any have been omitted, it has occurred from inadvertence or want of data.

Allman, Mrs. Mary, of Wheeling, W. Va., accompanied by Dr. J. Frissell.

Atkinson, Mrs., of Philadelphia, Pa., accompanied by her son, Dr. W. B. Atkinson.

Atlee, Miss M., of Philadelphia, Pa., accompanied by her father, Dr. W. L. Atlee.

Brown, Mrs. R., of Bellefontaine, Ohio, accompanied by her husband, Dr. B. S. Brown.

Catlin, Mrs. A. D., of West Meriden, Conn., accompanied by the husband, Dr. B. H. Catlin.

Cooper, Mrs. A. A., accompanied by her father, Dr. J. W. Russell

Courtenay, Mrs., and two daughters, Miss Nellie and Miss Emma, of Louisville, Ky., accompanied by Dr. D. W. Yandell.

The meeting of the Medical Association was well attended, and the business brought before it duly con-

Crook, Mrs. General, accompanied by Dr. J. Frissell.

Deleplane, Mrs. L. S., and daughter, Miss E., of Wheeling, W. Va., accompanied by Dr. J. Frissell.

Denig, Mrs. L. B., of Columbus, Ohio, accompanied by her husband, R. M. Denig.

Donohoe, Mrs., of Sandusky, Ohio, accompanied by her husband, Dr. H. J. Donohoe.

Elliston, Miss Lezinka, of Nashville, Tenn., accompanied by Dr. D. W. Yandell.

Epler, Mrs. H. L., of Cleveland, Ohio, accompanied by her father, Dr. A. H. Agard.

Frissell, Mrs., of Wheeling, W. Va., accompanied by her husband, Dr. J. Frissell.

Golding, Mrs. A. J., of St. Louis, Mo., accompanied by her husband, Dr. W. S. Golding.

Grub, Mrs. J., of Wheeling, W. Va., accompanied by Dr. J. Frissell.

Helm, Mrs. M., and daughter, Miss Maud, of Peru, Ind., accompanied by her husband, Dr. J. H. Helm.

Hibbard, Mrs. E. M., of Richmond, Ind., accompanied by her husband, Dr. J. F. Hibbard.

Hughes, Mrs. A. T., of Keokuk, Iowa, accompanied by her husband, Dr. J. C. Hughes.

Ives, Mrs. B. W., of New Haven, Conn., accompanied by her husband, Dr. C. L. Ives.

Jarvis, Miss Mary, of Louisville, Ky., accompanied by Dr. D. W. Yandell.

King, Mrs., of Lancaster, Pa., accompanied by her husband, Dr. George A. King.

King, Miss Ann, of Pittsburgh, Pa., accompanied by her father, Dr. J. King.

McArthur, Mrs., of Rockford, Ill., accompanied by her husband, Dr. A. L. McArthur.

McMeans, Mrs. A. C., of Sandusky, Ohio, accompanied by Dr. H. J. Donohoe.

Mendenhall, Mrs. E., of Cincinnati, Ohio, accompanied by her husband, Dr. G. Mendenhall.

sidered and disposed of, in the allotted four days. The members were in the meantime entertained in the most hospitable manner, both by the profession and by private citizens. The main purpose of our visit to the

Moore, Mrs. S. A., of St. Louis, Mo., accompanied by her husband, Dr. J. S. Moore.

Moorhead, Miss Jennie, of Pittsburgh, Pa., accompanied by Dr. J. King.

Morris, Mrs. C. C., of Baltimore, Md., accompanied by her husband, Dr. J. Morris.

O'Donnell, Mrs. S. E., of Baltimore, Md., accompanied by her husband, Dr. D. A. O'Donnell.

Roberts, Mrs., of Fort Madison, Iowa, accompanied by her husband, Dr. A. C. Roberts.

Rogers, Miss Maggie, of Wheeling, W. Va., accompanied by Dr. J. Frissell.

Smith, Miss, of Philadelphia, Pa., accompanied by her father, Dr. F. G. Smith.

Stanley, Mrs. L. A., of Sandusky, Ohio, accompanied by her husband, Dr. E. Stanley.

Stevens, Mrs. L. R., of Three Rivers, Mich., accompanied by her husband, Dr. S. L. Stevens.

Stormant, Mrs. Jane Cree, of Topeka, Kans., accompanied by her husband, Dr. D. W. Stormant.

Swett, Mrs. R., of Newport, N. H., accompanied by her husband, Dr. J. L. Swett.

Thomas, Mrs. F., of Bellefontaine, Ohio, accompanied by her husband, Dr. W. Thomas.

Thompson, Miss W., of Louisville, Ky., accompanied by Dr. D. W. Yandell.

Wise, Mrs. K. B., of Covington, Ky., accompanied by her husband, Dr. T. N. Wise.

Yandell, Mrs., of Louisville, Ky., accompanied by her husband, Dr. D. W. Yandell.

Hoffman, C. J., Esq., of Philadelphia, Pa.

Johnson, James L., son of Dr. J. B. Johnson, of St. Louis, Mo.

Mendenhall, Lawrence, son of Dr. Geo. Mendenhall, of Cincinnati.

Smith, Dr. Joseph A. and wife, of Fort Madison, Iowa.

White, J. P., Jr., Esq., of Buffalo, N. Y.

Pacific was thus happily concluded; but, cherishing a lively recollection of the friendships formed on the journey and during our sojourn, the desire was spontaneous and irresistible among the physicians from the East to take some measure for perpetuating a remembrance of the occasion as long as any of us, the participants, might survive. Thus was formed the Rocky Mountain Medical Association.*

As the membership is limited to the physicians who actually crossed the Rocky Mountains to attend the National Medical Convention in May, 1871, it is evi-

* The Rocky Mountain Medical Association originally consisted of 123 members. Of these 19 are now deceased. The greatest age attained by any deceased member was 74 years. The youngest was, at the time of his death, 32. The average age of the 19 deceased is 58 years. Of those living, the oldest is 76 and the youngest 31 years. Of the 99 living members whose ages have been ascertained, the average is 53+ years. Five members have not responded to inquiries.

The members represent graduates from 25 American medical colleges; of whom Jefferson Medical College claims 19; the University of Pennsylvania, 16; the College of Physicians and Surgeons of New York, 9; the Ohio Medical College, 8; University of New York, 7; the Cleveland Medical College, 7; Harvard, 6, and the Rush Medical College, 6; the other colleges, five or below.

The States furnished delegates as follows: Alabama, 1; Colorado, 3; Connecticut, 7; Delaware, 1; District of Columbia, 1; Illinois, 9; Indiana, 8; Iowa, 4; Kansas, 1; Kentucky, 3; Maryland, 2; Massachusetts, 4; Michigan, 4; Missouri, 4; Minnesota, 4; Nebraska, 1; New Hampshire, 2; New Jersey, 3; New York, 13; Ohio, 18; Pennsylvania, 21; Rhode Island, 2; Vermont, 2; West Virginia, 4; Wisconsin, 2.

The birthplace of the 118 members has been ascertained: Connecticut, 8; Georgia, 1; Illinois, 3; Indiana, 2; Kentucky, 1; Maryland, 2; Massachusetts, 8; North Carolina, 4; New Hampshire, 4; New Jersey, 4; New York, 18; Ohio, 13; Pennsylvania, 30; Rhode Island, 1; Tennessee, 3; Vermont, 7; Virginia, 3; South Carolina, 1; Austria, 1; Germany, 1; England, 2; Ireland, 1. Not learned, 5.

dent that, in the natural order of things, our numbers must gradually decrease, and ere many years the Association will cease to exist, except in history. Already nearly one-seventh of the original number have been translated to another sphere of existence.*

* While it is true that a few of our members are now in the May-day of life, yet the majority have passed their meridian, and a few are well up in the seventies. I am happy to say, however, that from a recent correspondence with them I am enabled to state that, with but very few exceptions, they are all in the enjoyment of as good health and surrounded by as many of the comforts of this world as could be reasonably expected.

In compliance with the expressed wish of the Association at our last meeting, I have collected data and prepared biographical sketches of as many of our 123 members as I could. Circulars were addressed to all, but some have not responded, possibly because the letters did not reach them, as the address of four is not known. The biographies will follow the address and be arranged in alphabetical order.

The following is a list (June 6th, 1877) of the names of our deceased members:

Ames, Alfred Elisha, died September 23, 1874, æt. 60.
Armsby, James H., died December 3, 1875, æt. 66.
Bibb, George Richard, died June 28, 1874, æt. 32.
Brown, Benj. Stanton, died December 19, 1875, æt. 73.
Collins, G. L.,* died August 25, 1877, æt. 56.
Crist, David Levi, died March 18, 1875, æt. 58.
Cummins, Robert Hazlett, died April 12, 1873, æt. 56.
Curtis, Edward M., died May 12, 1874, æt. 34.
De Bruler, James P., died August 12, 1874, æt. 57.
Hill, N. B., died February 5, 1875, æt. 58.
Jackson, John Davies, died December 8, 1875, æt. 41.
Jones, A. B., died October 15, 1876, æt. 47.
Kane, Edward, died January 21, 1875, æt. 74.
Mendenhall, George, died June 4, 1874, æt. 60.
Moore, E. B., died September 16, 1874, æt. 73.
O'Donnell, Dominick A., died August 26, 1874, æt. 65.
Robinson, M. F., died July 7, 1874, æt. 54.

* Dr. Collins, it will be observed, died since this address was delivered.

At our last meeting I was chosen your President, an honor which imposed the duty to address you on this occasion.

The selection of a subject worthy of your attention has caused me solicitude: and in the choice of a theme, I found myself almost involuntarily led to consider some of the problems discussed with my companions when crossing the great American plains. While we traveled for days through an uninhabited country, the mind was almost compelled to a retrospection, and to ponder over the existence of these immense interior plateaus and the fact of their being nearly destitute of population, of timber, and in a great degree of birds and animals. Was it always so? Were these vast regions always so poorly supplied with animal life? I think not. The testimony of the scientists who have examined the country is that ample evidence exists that at some remote period it had a numerous flora and fauna, which no longer exists and which possibly included man. With the aid of the imagination and with the light of recent discoveries, the attempt in fancy to review the great dead past, and by these means to repeople North America with its long-departed inhabitants, was on that occasion a most agreeable pastime.

I am aware that a scientific discussion of the subject would require me to treat of the animals and plants in the order of their appearance, to be deduced from geological evidences. As plants preceded animals, so ani-

Sayer, D. M., died August 3, 1876, æt. 69.

Thomas, William, died April 2, 1875, æt. 70.

Average age of deceased, 58 years.

imals preceded man. But possessing neither the ability nor the time for so systematic a study, I will commence with the Indian of North America, who to most of us is only known from what we glean of him through a casual perusal of history. An opportunity was now afforded us of seeing something of this race on its native soil, with habits but little altered by association with the whites, as, dressed in their wild costume, they congregated about the railroad stations, or were encamped along the streams in view from the train. Naturally enough the inquiry was suggested to us, as it had often been to others, are the Indians a type of a primitive race who, if left to themselves, in time would have developed and become familiar with the arts and appliances which so distinguish, if they do not constitute, civilization? Or must we view the Indian as having once belonged to a civilized race which has from some cause degenerated into the savage state in which we find it?*

An examination of the data for opinions on this subject shows us that the majority of the tribes and nations of the earth were, in the dawn of history, in a condition of savagery or barbarism. This view accords with the more recent discoveries, and renders it very probable that all races, nations, and peoples were in their beginning in a state of savagery, without articulate language or a knowledge of any of the arts, or even the use of fire.†

* This theory is maintained by Archbishop Whately and those who view the subject from a purely theological and traditionary stand-point.

† See the works of Morgan, Lyell, Lubbock, Baldwin, Rau, and others.

The creation of a language to express ideas and the acquisition of a knowledge of how to make implements and use fire, no doubt required many ages. Although the study of archæology is comparatively new, it has already done much to dissipate certain doubts and supply links in the evidence of man's condition in the world in prehistoric times.

You are aware that one of the most embarrassing obstacles to the proper investigation of the age of the world and the antiquity of man has been the traditional scriptural account of the creation of the world in six terrestrial days, together with a chronology of about six thousand years. This dogmatic, though I believe unauthorized, interpretation has greatly hampered the student, for every conscientious man hesitates to adopt or maintain views, though based on facts, which have even the semblance of a conflict with settled religious beliefs. Many able scientists, by giving a liberal interpretation to the Scriptures, understand the periods of time commonly designated "days" to be really eons of indefinite duration.

The Christian Church, which has established so many dogmas, has not decided that the day mentioned in Genesis meant twenty-four hours, nor has it fixed a date when man was created and placed upon the earth.* I might readily cite the names of many learned clergymen, of different denominations, who are greatly interested in the investigation of cosmical laws

* Mgr. Mignon, Bishop of Chalons-sur-Marne, is one of the best informed ethnologists and most enthusiastic cultivators of the sciences of ethnology and archæology in France, and hence it may readily be inferred that such studies do not trench upon orthodox doctrines. (Figuier, p. 2.)

which demand a much higher antiquity for the world than biblical scholars have been assigning to it. In the absence of specific revelation on the subject of the age of the earth, and the time of the first appearance of man on it, such questions are properly within the domain of scientific inquiry, and therefore all discovered facts in any wise bearing upon them should be presented to the public and discussed in a philosophic spirit, free from bias or preconceived notions.

The geologist in studying the rocks that compose the earth's crust recognizes their component parts and the organic forms embedded in them, and by such facts determines their relative position and their ages. The remains of man and his works found in the rocks, or buried in the earth, must be judged by the same rules as those which apply to the remains of plants or animals. Fossils and implements are the medals of great epochs in the earth's history. When once the consent of theologians to go beyond the traditional chronology of creation becomes general, cosmographers will have less difficulty in tracing the evolution of the globe that we inhabit and calculating the period required to prepare it for supporting animal life.*

* It may not be amiss to present a few of the reasons which establish in the minds of competent physicists a belief in the great antiquity of the earth. Sir William Thompson, in the *Philosophical Magazine* for 1863, has calculated the probable age of the crust of the earth at 98,000,000 years, which only comprehends the geological history of the globe. The astronomer Laplace, in his *Nebular Theory of the Cosmogony of the Universe*, as presented in an admirable paper by Prof. S. Newcomb before the Philosophical Society of Washington, starts with the hypothesis that there was probably a time when the sun with its atmosphere occupied all the space of the solar system. That in its revolutions, and by the radiation of its heat into space, it

No science comprehensive in its scope and capable of progress can reasonably hope to escape contests

condensed its atmosphere at the surface from nebulous matter, which aggregated first into bands and then into isolated spheres, thus commencing the formation of new revolving suns and planets. It is supposed the earth and all the other planets were in time thrown off from the sun's surface into space to revolve as independent bodies in defined orbits. There was in this theory a period when, in the language of the Bible, "the earth was without form and void." In the consideration of such a problem we are compelled to estimate measures of time or eons stretching so far back into eternity as to be incomprehensible to man. Calculations as to the time required for the condensation of the sun's original atmosphere and the radiation of its heat into space, have also been made by Sir William Thompson, showing that it must have required millions upon millions of years. One of these estimates is put down at 500,000,000 years. The hypothesis that the earth passed in its process of condensation from a gas to a semi-fluid molten mass, and that it is still liquid toward the center and is gradually cooling, is generally accepted. Professor Haughton, in a lecture on geology, estimates that it required 350,000,000 years for the earth to cool from 2,000° to 200° centigrade; that the time required for cooling from 212° (temperature of boiling water) to 122° Fahrenheit (at which organic life is possible) would require 1,018,000,000 years, and that it would require 1,280,000,000 years to cool from 122° F. to 77° F. (Pre-Glacial Man, by J. S. Moor, p. 7.)

As a further illustration of the subject, I present the chemical theory of the formation of our globe out of the sixty-four elements, supposed by Laplace to have been thrown off from the surface of the sun, in a state of vapor, at a high degree of heat. This abstract is arranged from views of Lockyer, Metscherlich, Daubree, and T. Sterry Hunt, but more particularly from the recent able presentation of the subject before the Washington Philosophical Society, by Dr. Thomas Antisell. It has been estimated that the temperature of the incandescent atmosphere when it left the sun had a heat of at least 22,000° centigrade. A degree of heat such as this was sufficient to vaporize all the elements composing the earth and keep them in a gaseous state. All molecules and substances of every kind were thus held in a condition of dissociation, and no solid could form until the temperature had fallen to or below 2,500°. The time required for the cooling of the primal atmos-

with old and cherished views that have acquired general acceptance. Although the late discoveries in

phere no doubt required many centuries. Gravitation would cause the heavier molecules to sink down to a lower strata of the atmosphere in which they were suspended, and whenever they reached a temperature where repulsion ceased, and chemical affinities could act, combinations would naturally be formed. And, as might be expected, elements in the greatest abundance, and which unite at the highest heat, would first form compounds and be deposited as a sort of crust upon the surface of the glowing and incandescent molten mass below, which began to form the solid surface of the earth.

Neither carbon, sulphur, nor phosphorus, could combine at such high temperature. It is therefore probable that silicon with oxygen, and hydrogen with oxygen, which unite at high temperatures, would be the first combining elements. These substances, too, are so abundant as to form about seventy-five one-hundredths of the crust of the globe. The metals aluminium and potassium would probably form the first combinations among the metalloids. It is not probable that any of the original chemical unions now exist, but that all our rocks, minerals, and earths are the result of metamorphic and erosive action.

The atmosphere during the early age of the earth, it is supposed, was many times heavier, and of a highly acid character, which must have had, under the influence of heat, a formidable dissolving power. Oxygen, which forms about one-fifth of the whole volume of the atmosphere, was, during the cosmical period, in a much larger proportion, as it forms nearly two-thirds of the solid substance of the entire globe. The tendency is constant in the economy of nature to rob the atmosphere of its oxygen and to fix it in new forms, as rocks, minerals, and other solids of the earth. Liquid water could be formed only after the temperature of the atmosphere had fallen below 212° Fahrenheit. The changes that had yet to take place in the lowering of temperature, the purification of the water, and the metamorphosis of the rocks and their disintegration into soils before life was possible, no doubt required many ages.

It has been more my purpose to hint at these great cosmical epochs and changes than to present them in detail. I am persuaded that no attentive student of the form and constitution of our globe will fail to recognize the fact that it has been a thing of slow growth and has undergone many changes. Nor can any one contemplate the plan of the

archæology and the deductions from cosmical laws have met with some opposition, they have nevertheless gained a fuller recognition than could reasonably have been expected.

That there was a time in the history of our planet when it received no radiated light, is probable. If this hypothesis be true, it follows that under such conditions it was impossible for either vegetable or animal life to exist upon it. But after eons of time had prepared at least portions of the earth for the reception of living things, there were localities, in the region of the poles, and even in the zones now called temperate, where no life existed, or could exist, on account of the intense cold. To the varying eccentricity of the earth's orbit were probably due the cycles of extreme heat and cold and those climatic conditions that prevailed at different periods of the past, and which made it possible for animals and plants requiring a tropical temperature to exist in localities where now none but those of an arctic climate are to be found. The fact is patent, that all portions of the earth are not, and never

universe and not be profoundly impelled to admire the plan of the Divine Architect. The vastness of ethereal space with its suns, planets, and myriads of stars all traversing their endless circuits in order and harmony, attest the power and wisdom of the Almighty. The universe, how incomprehensible is the term! It implies bounds without limits, and all the works of the infinite. No telescope can ever explore the vastness of stellar space, or mind conceive of its wonders.

Astronomers tell us that the stars comprising some of the nebulæ are so distant that light traveling with the usual velocity requires 700,000 years to reach the earth, and that the view we get is not their appearance at the present moment, but what they presented 700,000 years ago. Many other and perhaps more convincing evidences showing the formation and antiquity of the globe might be given.

were, at the same time in a climatic condition to support life. The submergence and re-emergence to which continents have been subjected in geological times were doubtless dependent in some way on the previously alluded to varying eccentricities of the earth's orbit, and possibly coincident with the extremes of heat and cold which produced the different glacial epochs.*

The earliest records we have of the human race, locate its genesis in Asia, near the Tropic of Cancer, and nearly on a parallel with the most ancient civilization known to history on the American continent.†

The belief that a very early civilization, possessing a knowledge of the arts and a written language, existed in Arabia, Hindustan, and in China, is becoming a settled conviction among scholars, and the opinion is also held that there were other early nations which had

* Edward Hitchcock, in his illustrations of surface geology, published in the Smithsonian Contributions to Knowledge, says (page 86): "We may then be quite sure of at least three depressions of the North American continent beneath and an equal number of elevations above the ocean, since the fossiliferous rocks began to be formed."

† The ruins of magnificent cities in Central America, brought prominently to the knowledge of the world by the intelligent labors of Mr. Stephens, was a great surprise to everybody, and particularly to those who had fixed opinions of the age of the world and the nations and peoples who had lived upon it, based on biblical chronology. "Here was a spectacle," says Mr. Stephens, speaking of Central America, "of a people skilled in architecture, sculpture, and drawing, and beyond doubt other more perishable arts, possessing the cultivation and refinement attendant upon these, and not derived from the Old World, but developing and growing up here without models or masters having a distinctly separate, independent existence, like plants and fruits to the soil indigenous."

grown old and dropped out of all tradition or historical record before the days of the Pharaohs. Evidences exist to show that North America was probably in a physical condition to support animal life at as early a period as Asia.

But before alluding to the early races of men, and particularly those of North America, let me make a single remark on its geological age, and then trace the earliest evidences of man in America and incidentally in other parts of the world. I need not speak of the primary and secondary geological period, as man did not then exist, nor in the present inquiry does the whole Mesozoic or the early Palæozoic period demand much more of our attention. Among the later Tertiary periods M. Desnoyers discovered in the chalk-pits of St. Prest, which belong to the Tertiary Pliocene period, evidences of man, associated with the remains of the southern elephant, the rhinoceros, leptorhinus, and a hippopotamus. The latter lived, according to Abbé Bourgeois, during the Miocene period, contemporary with the mastodons, kindred to the elephant, now extinct. The Tertiary man of St. Prest is much anterior to the troglodyte remains, and at least strengthens the hypothesis of man's existence prior to the last Glacial epoch.

It is known to you that about the beginning of the Quaternary period the phenomena of the great changes upon the earth caused by glacial action, ceased. Following this came the Diluvian, when mountain-torrents carried with them rocks, boulders, and pebbles, sometimes rending mountains and washing out the sides of the hills, transporting great quantities of the *débris* into

the rivers and valleys, the finer particles of earthy matters forming our alluvial deposits and agricultural soils. The heavier portions we recognize as the boulder formations and the gravel-beds. At this time, too, the rivers assumed their present direction and commenced carving out their beds. The changes which have gone on since the Quaternary period are frequently referred to as those of the "present period," and the strata formed during its continuance are called "recent deposits." This brief synopsis of geological facts is deemed essential to a ready understanding of the teachings and theories adopted in reference to human palæontology. They are also important landmarks in prehistoric archæology.

William Evans, President of the Geological Society of London, stated in February, 1875, that till within the last three years it was generally believed that the earliest known traces of man were posterior to the Glacial period.* But the portion of a fibula having been found in the Victoria cave, near Settle, England, in a deposit which was embedded in stiff Glacial clay and scratched pebbles overlain by ice, it may now be looked upon as conclusively established that man lived before the last Glacial period.† Professor James Geikie concludes, from general reasoning, that the palæolithic deposits are of a Pre-Glacial and Inter-Glacial age, and do not in any part belong to the Post-Glacial times, and, farther, that it may be said for certain that no palæolithic bed can be shown to belong to a more recent date than the mild era which preceded the last great submergence.‡

* *American Journal of Science*, vol. 10.

† *American Journal of Science*, vol. 10.

‡ The Abbé Bourgeois, in his investigations on archæology, carries

America is frequently spoken of as the "New World," but geological evidences render it probable that it is among the oldest of the continents. The rocks of Canada are at least as ancient as any exposed in Europe. Too little is known of the geology of Asia to enable me to speak of it. Professor Agassiz said, "Geology finds its oldest landmarks in America."*

man back to the Lower Miocene times. In the records of the Geological Society of India for 1873, Medlicott gives an account of a quartzite implement, precisely of the same class as those found in Southern India, which was discovered in the deposit of the Narmada Valley. The late Dr. Falconer regarded these deposits as Pliocene, while Medlicott places them with the Pleistocene. In India, man co-exists with the *Elephas insignis*, *Bos*, and *Hippopotamus nomadicus*. Lubbock, in *Nature*, March 27th, 1873, communicates the information that mastodon bones having figures of animals etched upon them were found in beds regarded as Miocene Tertiary. From these and other recent discoveries it is rendered probable that the appearance of man goes back to the middle of the Miocene period. (*American Journal of Science*, vol. 5, p. 497.)

* The Laurentian range of mountains in Canada exhibits the oldest metamorphic rocks that have been discovered. As corroborative of his view of the great antiquity of the American continent, Sir Charles Lyell estimates that the Mississippi River has been running in its present bed for 100,000 years. Professor Huxley, in estimating the time required for the Niagara River to have cut its channel from Lewiston to the present falls, indorses the opinion of Lyell that it could not be less than 60,000 years, and may have required much longer. Dr. Bennett Dowler, of New Orleans, discovered four successive tiers of deposits, each with growth of cypress trees, one overlying the other, in the alluvium of the delta of the Mississippi River, which he estimated would have required 57,600 years for their production. Indian bones and pottery were found beneath the roots of some of the cypress trees exhumed in sinking pits for the gas-works at New Orleans, at a depth which he estimated would have required 15,000 years to have filled up and the trees to have grown from the time they were placed there. Fossil remains of air-breathing animals are found in

To comprehend the period of animal life on this planet, we have as a matter of course to deal with many intricate and complex factors, as well as with very remote periods of time. Geology holds the key to and has already revealed some important facts, not only regarding the formation of the globe, but of the character and forms of early life upon it. And palæontology joins hands with geology in furnishing data from which the archæologist finds support and confirmation for the theory that man existed on the earth in Pre-Glacial times, and certainly earlier than the Drift period. The bones of man have so rarely been found embedded in rocks or gravel-drift that this kind of evidence of his very early appearance is less often met with than might have been expected. But just as conclusive of man's existence is the presence of any of his works or implements.*

the coal-bearing rocks in Pennsylvania, Ohio, and other States of the Union. In a letter of recent date, from my friend Dr. Frank Cowan, of Western Pennsylvania, he says that his own collection contains six specimens of air-breathing animals belonging to the Coal series.

* Human remains were found by M. M. Tournal associated with those of extinct animals, as early as 1820, in a cave in the south of France. In 1833, Dr. Schmerling discovered human remains with those of extinct animals, and also some rude stone implements were discovered in a cave near Liège, in Belgium. An account of the fossil man of Denise, comprising the remains of more than one skeleton, found near the town of Le-Puy-en-Velay, in Central France, was published in 1844 by M. Aymard. The authenticity of this specimen was carefully considered by Lyell in his work, *Antiquity of Man* (p. 194), where he also discusses the subject of the fossil human bones found at Natchez, Miss. Portions of a fossilized human skeleton were also found in Florida, by Count F. de Pourtales, in 1848. Dr. Lund, a Swedish naturalist, found human bones in a cave near Minas Geraes, Brazil, associated with evidences of great antiquity. All these point to a period as early as the Post-Pliocene.

The ancient human remains that have been found in America and Europe render it almost certain that although man may not have been contemporary with the first animals in existence, he was at least a co-possessioner of the world with many now extinct, such as the cave bear, the mammoth, and many others the remains of which are found associated often with implements and deeply buried in gravel-beds and alluvial deposits of unquestionable antiquity.*

The question of the region of the earth where man first appeared has incidentally been alluded to. The testimony of history upon this point is almost uniformly in favor of the biblical account which locates it in Asia. Some ancient nations occasionally spoke of themselves or were regarded by others as sprung from the soil on which they lived—the Athenians, for example, sometimes denominating themselves “Autochthenes” or “Earth-born,” and the primeval inhabitants of Italy being by the Romans and Etrurians denominated as “Aborigines;” yet it is an undoubted fact that the traditions of all nations point to the great tableland of Central Asia as the cradle of the human race. By some investigators the original seat of the human family is located in Armenia, on the western border of this table-land; by others in Pameer, Bamian,

* See Lyell, Lubbock, Baldwin, and Foster. The latter, in his work entitled “Prehistoric Races of the United States,” p. 79, gives a scale of geological periods and the oldest human remains and implants found up to 1873. The flint-flakes found in the Gravel-beds of Colorado and Wyoming Territories, which belong to the Miocene period, are as early as any in Europe. A human skull was discovered in Calaveras County, California, imbedded in strata belonging to the Pliocene period, and also many articles belonging to the Stone age.

or Bokhara, on the eastern border. Granting Asia to be the home of the first parents of the human family, the problem still remains to account for man upon the North American continent, which modern investigation renders probable is the oldest.

Were I inclined, I have neither the time nor ability to discuss the merits of the hypothesis of separate and distinct centers of either contemporaneous or the subsequent creations of man among the earlier animated beings in different parts of the world. I only allude to the subject so as not to appear indifferent to the solution of the question, and because I deem it unscientific to ignore the theory or to declare that it is impossible for primitive races to have been created in separate localities and at different periods in the world's history. These are questions that have engaged able minds. I will attempt nothing further than to indicate some of the more noted occurrences gathered from history, that might have favored large immigration to this part of the world, and concede, for the present, that it is probable that population was originally distributed from a single center, and that the continent of America was once less difficult to reach by land than it has been in modern times. But man neither immigrates nor migrates without adequate motives. If the only cradle of our race was in Asia, what then were the probable reasons for man's immigration to America and all other parts of the world? To make an exhaustive study of this problem is outside of my present purpose, but I shall give in a note, in the preparation of which I have been much assisted by my friend, M. F. Morris, Esq., some of the more notable events recorded in his-

tory, which it is believed may, to some extent, account for the great migratory movements supposed to have taken place in ancient times, and which may have assisted in populating the North American continent.*

* In connection with the theory that a portion at least of the population of America existing at the time of the discovery by Columbus was derived from the Old World, and especially from Asia, it is worthy of remark that the several periods of the arrival of the Toltecs, Chichemecas, Acolhuans or Tezcucans, and Aztecs, in the valley of Mexico, and of the Incas in Peru, have a singular correspondence with some prominent epochs in Asiatic history. Wars and political convulsions have been the most frequent cause of great emigrations; and while we have no positive proof that the revolutions of Asia have had any influences on the population of America, a curious coincidence of dates invites to an inquiry of the possible connection between the two continents in the Pre-Columbian Period.

China and Tartary were subjected to great intestine commotions, extending from A. D. 420 to A. D. 618, and resulting, according to the Chinese annals, in great emigrations from the empire. The Toltecs, the first known to us, and apparently the most civilized of all the tribes that occupied the valley of Mexico, made their appearance in that region about A. D. 648.

The conquest of Hindustan by Mahmoud of Ghazni, about A. D. 1000, with its accompaniment of religious and political persecution, is known to have caused a great exodus of the Hindu population from their native land and their dispersion over the islands of the Eastern Seas. Not long afterward, about A. D. 1021, appeared near the Lake of Titicaca, in Peru, Manco Capac, the founder of the dynasty and of the Empire of the Incas, whose religious observances and political institutions bear strong resemblances to those of the Solar Race of Hindustan.

Again, the conquest of Northern China by the Mantchu Tartars (A. D. 1115), and the subversion of that ancient empire by the great Mongolian Chiefs, Genghis Khan and Octai Khan, A. D. 1234-'96, may not have been entirely unconnected with the advent of the Chichemecas (A. D. 1170), the Acolhuans (A. D. 1200), and the Aztecs (A. D. 1325), in the valley of Anahuac. That the Mohammedan and Tartar invasions of Eastern Asia were productive of great commotions in that region is very certain; but it is probably impossible

The table-lands in the regions East of the Rocky Mountains have yielded to our explorers, and particularly to that sagacious and indefatigable worker in pal-

at this day to ascertain the extent of the resulting emigration, or its influence, if any, on the Western World.

Recurring to the still earlier period of the Mound-Builders, and the probable date to which we are referred for the time of the construction of their great works, a thousand years before the Christian era, it is remarkable that this was the period of greatest Phœnician activity, the epoch of Solomon and the Queen of Sheba, of Gautana or Buddha in Hindustan, and possibly of Zoroaster in Persia. In the twelfth, thirteenth, and fourteenth century before Christ, the great movement of the nations, beginning with the war of the Lunar Race, for the imperial throne of Hindustan, and marked by the establishment of the Fifth Dynasty in Assyria, the Milesian settlement in Spain and Ireland, the contests of the Pelopeds, Dardanians, and Heracleids in Greece and Asia Minor, and the colonization of the Etrurians in Italy, exerted an influence upon the world that has been traced to the most distant regions of the eastern continent; and it would not be surprising to learn that America was embraced within the same influence.

If the vague intimations of Phœnician and Carthaginian enterprise in the Atlantic Ocean given us by Plato and other writers have any foundation in fact, and if those daring navigators steered westward from the Straits of Hercules in the track subsequently taken by the great Genoese and coasted the shore near which De Soto led his fearless band, they would have reached, as did the latter, the Great Father of Waters, the Mississippi. And if they entered and occupied the country, their forts and habitations would naturally be found scattered along the valley of that river and through the region drained by its tributaries. Now, the traces of the Mound-Builders are found mainly in the Mississippi Valley. They are faint, if indeed they exist at all, on the Atlantic and Pacific slope; and the inference is very strong, that the mysterious race which preceded the nomadic Indian in the center of our continent must have entered the country from the Gulf of Mexico.

In this connection, it may be stated, also, that the auriferous region of Ophir, with which Solomon and his Phœnician allies traded, and

æontology, Professor Marsh, hundreds of specimens of fossil mammals and birds previously unknown. Professor Huxley had an opportunity of examining this rare collection when in America last summer, and on his return to Great Britain took a public occasion to speak in glowing terms of "his good friend" the Yale Professor, and declared that "his achievements had already largely extended the area of knowledge." The Black Hills and the calcareous rocks in that wonderful region between the Colorado and the Rocky Mountains, which was once a shallow sea, contain thousands of fossils as perfectly preserved as though they were encased in a bed of plaster-of-Paris. It was in this region that Mr. Marsh found the two splendid specimens of fossil birds, perfectly preserved, with unmistakable teeth. His fortunate and important discoveries have supplied the missing links of extinct species of the horse. Already his cabinet contains thirty distinct species of the equine tribe. Other explorers are also reaping a rich harvest in this new field; Prof. E. D. Cope's discoveries being scarcely less important to science than those already referred to. This rich deposit of fossils is destined to throw much light upon the stratification as well as the early forms of animal life in North America. As yet it has been but partially explored, and the discoveries actually made have not been fully given to the public. If the flint-flakes observed in the gravel-beds of Colorado and Wyoming prove to be true "finds," and

the voyage to which, together with the return, occupied three years, is conjectured by some to be identical with our California, or some other gold-bearing region of America; and the conjecture is as plausible as any other that has been suggested of the location of that region.

the strata correctly named and assigned to its true geological position, the evidence of man's existence upon this continent will be carried back to the Miocene period. And if the discovery of the human skull in the Pliocene deposit of Calaveras County, California, is to be credited, it is the earliest human remains yet found, older even than the stone implements of Abbeville and Amiens, described by Dr. Falconer, or those furnished by the caves of Belgium and France.*

If the hypothesis be correct that all the primitive races of mankind appeared upon the earth without a knowledge of any of the arts, there can be little doubt that before they were acquired man must have had a severe contest for existence with the elements and the fierce animals which surrounded him. Man's dwelling-places then, doubtless, were in caves or grottoes, and such localities as were easily rendered inaccessible to beasts of prey.† The fact that caves are still

* In the drift deposits of San Joaquin Valley, near Sacramento, were discovered a plummet and a stone hatchet. In Jersey County, Illinois was found the innominate bone of a man associated with flint implant and the bones of extinct animals. Also, human remains and implements were noticed in the drift deposits in the valley of the Sacramento, the Osage, the valley of the Missouri; in the last case they were associated with the bones of a mastodon. Human remains have also been found in other places, all pointing to their great antiquity.

† As confirmative of this view, it is well known that caves have been discovered in almost every country affording conclusive evidences of their having been occupied as habitations by human beings. In Ethiopia, Upper Egypt, the borders of the Red Sea, Moesia, Mauritania, and the northern part of the Caucasus, and throughout the mountainous regions of Arabia, are numerous caves which have been converted into the dwelling-places of the half-savage Bedouins. Ptolemy, the Grecian geographer, described what he called races of

occupied as dwellings in the mountainous parts of Arabia, Nubia, and Upper Egypt, and the many traces of such habitations in other parts of the world, fortify the belief that in early times they frequently served as man's abode, the place for the celebration of his religious observances, as well as the spot of his burial. Naturally, then, if we remember the condition of primitive man, human remains and implements should be found in these localities as they are, and associated with the bones of extinct animals.

As yet no systematic study has been made of the American caves with a view of ascertaining whether man's early dwelling-place on this continent may not have been similar to what it was in other parts of the world. There is reason to believe that there are such in the United States that will yet furnish valuable data upon this interesting subject. F. W. Putnam, of Massachusetts, and Dr. Joseph Jones, of New Orleans, and a few others, have of late turned their attention to their exploration with encouraging results.* It is probable that a very long period elapsed between the time when the inhabitants of America sheltered themselves in caves and places not constructed by themselves, and the time when they were in some localities, as in Colorado, improved by extending them under cliffs and dividing them into apartments, and tenanted by a now forgotten race, which explorers call "Cliff-Dwellers."

We must recognize the possibility of distinct races

troglodyte people, because they lived in caverns. For evidence of this kind of habitations in the United States, see Professor Hayden's and Lieutenant Wheeler's reports for 1875. (See Annual Report Smithsonian Institution 1874, p. 367.)

dwelling in the same region, at the same time, as well as at subsequent periods, and the change which climate and subsistence are capable in time of producing in the modes of life and intellectual powers must not be lost sight of. Although the cave ruins and those of the mound-builders are not conclusive, they nevertheless point out significantly the former existence upon this continent of two different but now extinct races. Sufficient data are not yet available (though rapidly accumulating) for a profitable presentation of this theory of the question of the former inhabitants of North America.

The character of food has doubtless much to do with physical development as well as with courage and mental characteristics.* Observation has fully estab-

* It is probable that the early inhabitants of North America, particularly those dwelling along the sea-coast and large rivers, derived, for many generations, most of their food from shell-fish. This hypothesis is strengthened by the numerous great shell-heaps found all along the Atlantic coast, and frequently referred to by the early explorers and settlers. Dr. Brickell, in his *Natural History of North Carolina*, published 1737, page 289, says:

"It is very strange to see in all the places where they [the Indians] have been formerly settled, or had their towns near the salt waters, what vast quantities of oyster-shells are to be met with on the banks of the rivers, in such heaps that it is surprising to behold them. One might reasonably imagine, by such great quantities as are there, that they scarce lived upon anything else, or that they must have been settled many hundred years in one place, which is not common amongst them, being a people always shifting from one place to another, as their fancies led them." Vast shell-heaps in the State of New York were noticed by Father Isaac Jacques (see his "Description of New Netherland," written in 1642-'43).

Sir Charles Lyell describes the great shell-mounds on St. Simon's Island, near the mouth of the Altamaha River, Georgia.

Shell-heaps are also found on the Tennessee River, at the town of

lished the fact that people who live wholly or chiefly upon a fish diet, as a rule, advance less rapidly, and are slower to acquire and apply a knowledge of the arts, and also present a noticeably lower grade of intelligence than tribes that live by trapping and by the chase. None rank so high or advance so rapidly in the scale of intelligence as those who derive the bulk of their food supply from pastoral and agricultural modes of life. Purely hunter tribes have but few if any domestic animals, and, strangely enough, the milch-cow is among the last added. Only the agricultural and village Indians of the present day keep cows. The milch-cow, so important to civilized man, was no doubt first protected and kept for dairy purposes by pastoral and nomadic races of the Old World, and is frequently alluded to by the early historians.*

Savannah, Tenn., and at various places along its course. For description of them, see Smithsonian Report 1870, page 414. For an account of the shell-heaps of California, by Paul Schumacher, see Smithsonian Report 1874, page 335. Shell-heaps in Illinois, near New Boston, on the Mississippi, are described in the Smithsonian Report 1874, page 353. Shell-heaps are also found in many other States, as Maine, Massachusetts, Connecticut, New York, New Jersey, Maryland, Virginia, South Carolina, Florida, Alabama, &c.

* Man had advanced toward civilization and passed out of the lower savage state before he commenced to collect and tame what are now recognized as domestic animals. These animals were at first kept as beasts of burden, or to be slaughtered as required for food. It is natural to suppose that certain of them soon attracted attention by the amount of milk they were capable of furnishing, and which could be utilized as food. The Greeks milked goats and sheep as well as cows. History tells us that the milk of the camel, the mare, the ass, and a considerable number of other animals has been used as food. A desire to increase the food supply no doubt led to the making of cheese, which was practiced by pastoral and nomadic races from an early period; but the art of making butter, such as we use, is a compara-

As might be inferred, the Indians who have lived in a temperate climate and on productive soil, and had little if any intercourse with predatory hunting bands, being thus left to their own resources, would perpetuate family peculiarities and at the same time progress most in the peaceful arts. Certain tribes dwelling in the valleys and on the plains bordering on the Rocky Mount-

tively late invention. Herodotus in describing the Scythians alludes to the substance called butter and describes the manner of making it, which leaves the inference that we derive the art from them. Hippocrates mentions it as a medicine, and is the first to use the word "butter." This article was not known to the Greeks until a late period, and was only used by them as medicine, not as food. The Romans only used butter as a medicine. Pliny, however, mentions the fact that the barbarous nations (meaning the Germans) made not only cheese but also butter, which was a most pleasant kind of food, and its use distinguished the rich from the poor. It was not considered an article of food as late as the time of Galen. The ancient Christians in Egypt used butter to burn in their lamps at religious festivals; the same use was permitted on Christmas festivals at Rome, when there was a scarcity of oil. The butter spoken of in early history it is evident did not have the consistence and form in which it is made in our time, but was a thin oily substance, which was not cut or spread, but poured and flowed as thin oil. In the cathedral of Rouen, and several other old churches, there are towers called "butter towers," because butter is used in the lamps that light them. It is probable that the Hebrews used butter as a food, although there is some doubt as to the meaning of the various texts upon which such a supposition is founded, as they imply that the mode of making it was by squeezing from cream or sour milk as in making cheese, rather than by churning to separate the fatty particles from the caseine which alone forms the butter. Corroborative of the fact that butter is but a comparatively recent addition to the food supply, we may remark that even now in Southern Europe it is seldom used on the table. In Italy, Spain, Portugal, and France, it is sold in the apothecary shops, and is but little used as an article of diet. In those warm countries, however, olive-oil takes the place butter occupies in cooking in other parts of the world.

ains, more than any others in the United States, have enjoyed these conditions. And it is just here that we find the greatest anomaly in Indian history, the semi-civilized tribes of the Pueblo, Zuni, Isleta, Taos, Moquis, and other village Indians, who have made the greatest advances in the arts and in agriculture. The Pueblo Indians, however, know nothing of the people who built and occupied the cliff-houses. In some respects the many-storied stone and adobe houses of the modern Pueblo Indians of New Mexico resemble the ruins denominated cliff-buildings, but which I think point to a people that antedates the adobe-building race. Some Pueblo Indians state the cliff-buildings were made by Mictazuma's people emigrating from the north.

The catacombs of Rome were from the beginning of the Christian era noted as dwellings and places for religious worship as well as for sepulchre. Wilson's cave, in Indiana, may be taken as one of the best examples yet discovered of a cave which was probably occupied for religious worship in the United States.*

* Perhaps the most remarkable cave-temple is the one on the island of Elephanta, a small island of British India. Here is a very large cave-temple, elaborately decorated and cut in native rock near Bombay. It has long since been deserted by its priests, and is of unknown antiquity. The entrance is 60 feet wide and 18 feet high, supported by two grand columns. The breadth of the cave is 123 feet, with a depth about three times as great. The sides are excavated into compartments and filled with mythological sculptured figures. On the same island there are also two small cave-temples filled with Hindu statuary.

The catacombs of Egypt, from their size, their splendid decorations, and the fact that they are the last resting-place of her long line of kings, have been justly considered the most remarkable in history. The entire chain of mountains in the vicinity of Thebes are mined and occupied as tombs. Those of Syracuse are larger and better preserved than those of Rome. Naples has her subterranean cave or catacomb

"In this sublime inclosure," says Pidgeon, "there are pictures sculptured on the walls representing the sun in various positions, rising, noonday, and declining. The serpent is also sculptured in the form of a circle, with its tail in its mouth, the viper with its mouth widely open, the tongueless crocodile, the seven stars, the hydra-headed serpent, and huge animal somewhat resembling the elephant." There are many delineations of animals not existing in America at the present day, although similar to those of the polar regions, with other tracings strongly resembling Grecian and Roman figures. Caves used to some extent for burial purposes have been noticed in Kentucky, Tennessee, and Indiana, some of which have furnished complete skeletons in a good state of preservation.*

city of the dead. Malta also boasts of her catacombs, which, although not large, are in good preservation. The so-called catacombs of Paris were mere quarries and not properly entitled to be called catacombs, although of late they are being used as a repository of the human remains taken from the crowded cemeteries of the city.

From remote antiquity caves have been places of retreat by the natives, as the lava-beds of Oregon were to the Modoc Indians. When the French conquered Algeria, in 1845, several hundred Arabs were suffocated in the cave of Dahra, by Colonel Pélissier, who directed a fire to be kindled at the entrance.

Dr. Livingstone in his letters from Africa describes vast caves which served as places of refuge for whole tribes with their flocks and household implements.

Desnoyers says, there are at the present ten villages, including the church, existing in rocks but slightly modified by man. The caves of the Dordogne were inhabited by men and domestic animals during the Middle Ages. (W. B. Dawkns' Cave Hunting, p. 6, 7.)

*Dr. Joseph Jones, in his report on the Exploration of the Aboriginal Remains of Tennessee, which forms one of the recent contributions to knowledge by the Smithsonian, describes many sepulchral caves, one in Warren County, in West Tennessee, first referred to by Haywood,

Journeying along the Pacific Railroad to California, a hundred miles or more to the south of us in Colorado, and in Southern Utah, there are indications of a once large population, with groups of old ruins of considerable towns, which give evidence that their builders enjoyed, centuries ago, a high degree of civilization and intelligence, perhaps higher than is possessed by any existing Indian tribe in the United States. Evidence supporting this view is found abundantly in all the valleys intersected by the Gila River in Arizona. J. R. Bartlett, in his *Personal Narrative of Explorations* describes the immense quantity of broken pottery, rude and painted, raw and baked, which is scattered over almost the whole face of the country, and is occasionally washed out from beneath the surface by the freshets. This fact has been noticed in Vol. 7 of the Report of the Pacific Railroad Survey, and indeed by all explorers.* Surprising as are the ruins of these cities in

one near the confines of Smith and Wilson Counties, and another in White County, Tennessee, on the south side of the Cumberland River; also one in Giles County, below Carthage, on the same river; and still another above Carthage, also on the Cumberland; and refers to many others. In 1815 a human body, in part clad in coarse linen wrappings, somewhat after the order of an Egyptian mummy, was discovered in a cave in the vicinity of the Mammoth Cave in Kentucky. A cave near Lexington, Ky., is said to have contained a number of human bones when the first settlers visited the place. In Warren County, Kentucky, Mr. Charles Wilkins in 1817 found human remains in a niter-cave draped in coarse cloths. This list of burial-caves in our country might be considerably extended if desired.

* W. H. Holmes, in a paper on the Ruins of Southwestern Colorado (Dr. F. V. Hayden's report, 1875), says there is scarcely a square mile in the six thousand examined that would not furnish evidence of occupation by a race totally distinct from the nomadic savages who hold it now, and in every way superior to them.

Colorado and New Mexico, there are still other monuments in this region which surpass them in the interest they excite in the student of archæology; these are the ruins of the peculiar habitations to which I have alluded under the name of the cliff-dwellings. In some instances, and in close proximity to these cliff-houses, are found on high promontories large round towers built of stone, as if to serve for lookouts and defences to the cliff-houses.*

The ruins, most carefully examined, are built of stone, and situated along the Rio la Plata, the McElmo, and Rio Mancos, in the southwestern corner of Colorado. The existence of these peculiar remains has been noticed by Capt. A. R. Johnston, Lieutenant Ives, Colonel Simpson, Sitgreave, Bartlett, Wheeler, Newbury, Lieutenant Birney, Oscar Lowe, Dr. H. C. Yarrow, and others. They were first, however, graphically described by W. H. Jackson and W. H. Holmes, who have figured a number of them in Professor Hayden's Report on the Geological Survey of the Territories for 1875. Some of this class of ruins have also been described by Prof. E. D. Cope (see Lieutenant Wheeler's Annual Report for 1875), and by Abbe Em. Domech in his *Seven Years' Residence in the Deserts of North America*, vol. 1, p. 201. The description of

* Lieut. Col. W. H. Emory, in his *Military Reconnoissance of New Mexico*, p. 133, makes the following remarks: "Near the headwaters of the Salinas, which runs in a course, it is said, nearly north-east and southwest, is a band of Indians called the Soones (possibly this is another name for the Zuni Indians), who, in manner, habits, and pursuits, are said to resemble the Pimas, except that they live in houses scooped from the solid rocks. Many of them are albinos, which may be in consequence of their cavernous dwellings."

these ruins has awakened unusual interest in the study of the condition and habits of the prehistoric races of North America. The cave-houses or cliff-dwellings are found in or along the deep cañons and located in ledges of the rocks, at almost inaccessible heights varying from a few hundred to a thousand feet above the bed of the river.* Some are in a good state of preservation, but for the most part they are in ruins. All of them, however, show skill as well as great labor and perseverance on the part of those who constructed them.

The cliff-houses partake somewhat of the characteristics of cave habitations, but they are a vast improvement upon them, and show a decided advancement in resources and knowledge. I am inclined to think that these semi-caves and cliff ruins show the earliest divisions of the house into apartments to be found in America. Major Powell, however, considers them of more recent construction than the Pueblo adobe ruins existing in the same region. The pottery and other implements so far found in and about them suggest that they have probably been inhabited by an intrusive race, since their builders ceased to occupy these structures. It is very probable that long antedating the building of these cliff-houses, and even the existence

*These structures are of stone, requiring but a front wall and such partitions as they chose to make. A peculiarity is that nearly all have a circular room or apartment, and seldom with windows. Occasionally round stone towers are found built on high promontories and isolated peaks, resembling the round towers or Cuthite remains so numerous found in Ireland. Towers of a similar character are known to exist in Eastern Europe and Asia, in Peru and other parts of the world, and possibly served as temples to a very early civilization.

of the people who built them or the cities whose ruins in Colorado command our admiration, there lived and perished other races of which we have no knowledge and scarcely any remains, because they possessed but few implements and constructed their dwellings of perishable material.*

This hypothesis is strengthened by a class of remains numerous found throughout the Central and Southern States, which have recently engaged the attention of many able archæologists, and which point unmistakably to a very early occupation of North America. The race which erected these monuments must have been numerous and industrious, possessing a stable form of government and an acquaintance with some of the arts. The monuments they have left are distributed throughout the valley of the Mississippi, and are perhaps as old and will prove as enduring as the Pyramids of Egypt. The people who built the mounds were, in my opinion, distinct from and lived long anterior to the Indian. We only know of them by their peculiar earth-works, and by common consent denominate them "The Mound-Builders." That they combined the pastoral and agricultural with the hunter's life is probable, from the fact that their remains are only found in the midst of the most productive lands. The extent of these works, and the time required for their construction, show that they must have had an organized, compact population. The mounds may be described as of three classes, namely, for sacrifice or worship, for defense, and for burial.

* Mr. Wirt says that there were two races extinct before the Indian came to occupy the country. (Mayer's Mexico, p. 260.)

There is also a class of peculiar ruins, though not so numerous as the former, chiefly found in Wisconsin, called "animal mounds," which have been admirably described by Dr. Lapham, and supposed by him to be totemic.* The mounds are found from the Lakes throughout the Mississippi Valley, with evidences that the center of the densest population was in Ohio, Kentucky, and Tennessee. But they exist in every State from South Carolina to Florida, from Labrador and the Lakes to the Mississippi River, around the Mexican Gulf, and even in Mexico and across into the Pacific States. All these monuments point to the same mysterious source. It is difficult to say whether this strange race has become wholly extinct, or was the progenitor of some of the Indians now living.† The

* Animals of one kind or another have in every age and in every country been selected to typify and symbolize both national and religious sentiments which it was desirable to have popularized to secure unity among a people. Symbols are a kind of natural written language with the unlettered; the practice of using them was much more common in ancient times than since the invention of an alphabet. We all know how effectively the Christian Church has introduced the figures of the lamb, the lion, the dove, the serpent, the pelican, the fish, the ox, and many others. The figures of animals have also been placed upon the flags and ensigns of nations, some adopting real and other mythical animal figures. China and Japan have their fabulous dragons, other examples will readily occur to every one. I recognize in the animal mounds the germ of the same sentiment which develops the use of symbols by civilized nations.

† E. G. Squier, who gave us the first and most systematic work on the mounds and antiquities of the Mississippi Valley, held the view that the Mound-Builders were a distinct race from the Indians. When he wrote his second work, entitled "Aboriginal Monuments of New York," he thought he had sufficient evidence to show that the present race of Indians had erected the mounds in that section. Since then,

probabilities are in favor of the former supposition, for the habits of the hunter Indians ever since the discovery of America are entirely opposed to any assumption that would attribute to them the labor necessary for the construction of these works. There certainly has been no building of mounds and but little intrusive occupation of them since Europeans first came to America. But the probabilities amount almost to certainty that they have not been generally occupied within the last thousand years. There are found in many parts of our country the remains of large and well-designed fortifications, as well as of walled cities. A fine example of the latter was recently discovered in the valley of the Rio Chama, near Abiquiu, N. Mex., by Assistant Surgeon H. C. Yarrow, U. S. A., which is described and figured in Lieut. G. M. Wheeler's Report for 1875, p. 145.*

however, according to Mr. Baldwin, jr., in his *Ancient America* (p. 32), Mr. Squier has reaffirmed his first opinion on the subject of the Mound-Builders, and now holds them to be a distinct race.

* It will be remembered that Dr. Hildreth counted over eight hundred rings, each representing one year's growth, upon the trunk of a tree cut from the mound at Marietta, Ohio. (Lyell's *Antiquity of Man*, p. 41.) Calculations of this kind have been made at other mounds, and by different observers, all corroborative of the general conclusion that they were of great antiquity. As indicative of the age of the mounds and earth-works throughout Ohio and Kentucky, it will be remembered that when first discovered they were covered by thick forests of large trees. General Harrison, in an address before the Historical Society of Ohio, dwelt upon the fact that lands abandoned are not, until after many successive growths of scrubby timber, taken possession of by a prevailing class that dominate all others and grow to be large trees, such as were found throughout Ohio and Kentucky, covering these works as thickly as the land elsewhere. Consequently, these forests would have required many hundreds of years for the commencement of such forest-growths after the lands were abandoned by the Mound-Builders.

These earth-works and the archæological antiquities obtained from them have for more than a century been attracting the occasional notice of our historians and scientists. Large collections of relics from them have been made by the Smithsonian Institution, by universities, and by individuals. The Smithsonian from the time of its organization has taken special pains to form a cabinet of American antiquities and to obtain all possible information relating to the aboriginal races of North America. The first Contribution to Knowledge, published under Smithson's munificent bequest, which has been so judiciously administered by Prof. Joseph Henry, was prepared by Squier and Davis, and entitled "Ancient Monuments of the Mississippi Valley."*

*The Smithsonian Institution in 1871 published a second quarto volume by Mr. Squier, entitled "The Aboriginal Monuments of the State of New York." It also issued a volume, by Col. Charles Whittlesy, entitled "Ancient Works in Ohio;" also a volume by the same author entitled "Ancient Mining in Lake Superior." The seventh volume of Contributions to Knowledge by the Smithsonian Institution contains Dr. Lapham's admirable treatise on the Antiquities of Wisconsin. This work is devoted to a delineation of what are denominated "animal mounds," which are supposed to have been chiefly totemic or symbols of allied families and tribes of Indians. In a few instances only have human remains, utensils, and implements been found in them. These earth-works are so constructed as to very closely resemble particular animals, as the bear, the turtle, eagle, and many others, but of gigantic size. In 1855 there was published in the Smithsonian Contributions to Knowledge a work entitled "Archæology of the United States," prepared by Samuel F. Haven. In 1876 a carefully-written volume appeared in the Contributions to Knowledge, prepared by Dr. Joseph Jones, entitled "Explorations of the Aboriginal Remains of Tennessee," which region of our country is particularly rich in caves, tumuli, and stone mounds containing archæological remains of a prehistoric race. The same year a volume entitled the "Archæological Collection of the United States National Museum"

The Smithsonian Institution contains a wonderfully rich collection of archæological specimens obtained from the mounds, including weapons, implements, and ornaments in stone, pottery, and to some small extent of wood and copper, and many articles the use of which is unknown. The specimens which illustrate ancient American archæology have been derived from all parts of the continent and contributed by a host of collectors. Major Powell, Professor Hayden, Lieutenant Wheeler, Mr. Dall, and many others, have added largely to the collection which illustrates the habits of the North American Indians. The collection admirably exhibits the degree of art possessed by prehistoric as well as existing tribes.*

was prepared by Charles Rau. This work must prove to be of great value to those interested in the antiquities of America. In 1866 James G. Swan prepared for the Contributions to Knowledge a volume on the Indians of Cape Flattery, Washington Territory, bringing to light many hitherto unknown facts in relation to the Indians in the northwestern section of the United States. I will mention only one other of the many valuable Contributions to Knowledge on the subject of the antiquities of North America, issued by the Smithsonian Institution, a work prepared by L. H. Morgan, on "Systems of Consanguinity and Affinity." Those interested in this study will also find in the miscellaneous publications of the Institution, and particularly in the annual reports, two or three articles each year relating to the antiquities of America. The bibliography of works treating upon this subject is extensive, and is yearly being added to by careful observers and profound thinkers. A series of quarto volumes are now being published by Prof. J. W. Powell, entitled "Contributions to North American Ethnology," the first volume of which has appeared.

* I do but simple justice to state that this collection is open to the public, and every facility afforded investigators to examine and compare specimens and to consult the valuable libraries of the institution. All articles are named, and the locality whence obtained, as far as practicable, given. This is also true of the collection in the Army Medical Museum.

It was my desire to discuss more in detail the evidences of the great antiquity of the mounds, and to bring together the discoveries and facts warranting this deduction from the implements found in the tumuli, but time does not permit. I will, however, add that the implements and skeletons of recognized Mound-Builders that have thus far been collected are perhaps, considering the tens of thousands of mounds that exist, fewer than might be supposed. Fragments of implements and utensils of intrusive occupiers, as well as their skeletons, often found in the same mound, complicate the question of race as well as that of the period of first deposit.

Dr. G. A. Otis, U. S. A., has made the osteological structure of the prehistoric and Indian races of America a special study. His admirable collection of crania and skeletons from the early burial-places of America is a valuable addition to the Army Medical Museum in Washington, and is the finest, if we except that of the later Professor Morton, of Philadelphia, so rich in foreign crania, of any in the United States. It contains six complete skeletons and one hundred and sixty-four crania, and hundreds of incomplete skeletons of Mound-Builders. From an examination of these, I am inclined to believe they do not represent a race of as large stature as the average Indian of the present day. The following points may be presented as pretty well ascertained anatomical characteristics strongly marked in the Mound-Builders, and in most of the lower races. The foramen magnum is farther back toward the occiput than it is in the white man, and examples of the persistence of the frontal suture in adult life are

much more infrequent than in the European races, or in the white stock of mixed blood in this country. The ossa triquetra or Wormian bones are more frequently met with. The cranial capacity seems less, the supraorbital ridges are more strongly defined, and the facial angle is small and ape-like. The tibia is almost always bowed forward and notably flattened and sharpened—a condition uniformly present, which has been called platycnemism. The pelvis is less dished or curved, and the sacral and coccygeal bones are more nearly vertical. The sigmoid fossa of the humerus is nearly always perforated, and the sesamoid bones are more numerous. Artificial deformities of the skull, generally with asymmetrical portions or flattening, is common in crania taken from tumuli in Florida, Louisiana, and Mississippi.*

It has been stated by Morton and others that the common wants of human beings in no wise related lead them under similar circumstances to adopt very much the same habits of life and means for obtaining food and securing shelter. If this hypothesis be correct, it is less surprising that the savage races living

*Those interested in the subject would do well to consult Dr. Hermann Welcker's "Researches on the Growth and Structure of the Human Crania," and a paper announced before the Philosophical Society of Washington on the persistence of the frontal suture observed in the crania of adult Mound-Builders, also chapter VIII. on the Crania of the Mound-Builders, in J. W. Foster's "Prehistoric Races of the United States" and "A Study of the Skulls and Long Bones found in Mounds" with a table of measurements, by R. J. Farquharson, M. D., in the Annual Report of the Smithsonian Institution for 1874, p. 361; also the opinion of Prof. Jeffreys Wyman, in the Fourth Annual Report of the Peabody Institute for 1871, Peschel's Races of Men and other works.

at the extremes of North and South America, under very similar climatic conditions, have nearly the same habits, and are all in a deplorably low state of savage life. The fact is familiar to you that the tribes from Behring's Strait along the Frozen Sea, Alaska, and British America, as well as those of Patagonia, within the frozen zone of South America, are all living in a state of savagery, none of them having advanced in the arts beyond what is denominated the rough stone age. On the American continent between these extremes and within the tropics on either side of the equator, civilization founded empires and grew to power, building cities which rivaled in grandeur the finest contemporary architecture of Europe. I need hardly say that I allude to the civilization and architecture of Central America, Yucatan, Mexico, and Peru. Whether the people who erected the cities of Mexico, Uxmal, Palenque, and Quito were the ancestors or descendants of the Mound-Builders, or quite a distinct people, has not, and perhaps never may be, determined. It is very probable that they were in some way related. Each view has able advocates, though I shall not, on this occasion, attempt to present their arguments.

It is known to you that the people of Central America, Mexico, and Peru developed an elaborate architecture and a system of government and religion peculiar to themselves, differing from those of any other race. They also produced a literature of their own; most of the latter has, unfortunately, been lost.

The Indians of the present period, if not the true aborigines of America, were the pre-Columbian oc-

cupiers of the land. The testimony of the early voyagers and explorers is definite and uniform as to their general characteristics, their peculiar mode of life, their government and their arts. Their grade of advancement was manifest in their social and domestic life, in the construction of their wigwams, the location of villages, the variety of their food, their domestic utensils, their dress,* in the care with which they

* The origin and history of dress or raiment is a subject of much interest, in a study of the progress of our race. Clothing seems so much a matter of course, and which fashion, rank, and usage now control in all civilized countries, as scarcely ever to excite an inquiry as to whether there was a period in the history of man when he did not wear it. If we accept the theory that the human race has emerged from a state of savagery, this condition certainly existed, and with it a moral sense so feeble as not to recognize shame, and unable to control any desire on ethical grounds. It is evident that the purposes of dress among such a people would be different from that which governs civilized society at the present time. From a study of the habits and usages of the uncivilized races, it is probable that dress originated more in a necessity to protect exposed parts from injury and annoyance, than from any mental or moral conception of its propriety. It is undoubtedly true that climate as well as the productions of a region and the methods adopted by races for procuring food, may to some extent determine whether the whole body or a part only be covered. For instance, the Esquimaux, from the rigor of the climate, covers the whole body as a defense against the extreme cold; while races living within the tropics, where clothing is not required for this purpose, are found to dwell in a state of almost complete nudity. The hunter and trapper, living by the chase, would naturally need and wear moccasins, the breech-clout, and perhaps leggings, while those living by fishing might be rather inconvenienced by them. The North American Indians, and particularly those living in the southern parts of the United States at the time this continent was first visited by Europeans, were found to live in nearly a nude state, or to wear little more than an apron. Farther north, tribes depending on game for subsistence wore in cold weather not only moccasins and

cultivated the soil, and in the exercise of forethought in laying up provisions in summer for consumption

leggings, but an additional large dressed skin or skins which they suspended from the shoulder and wrapped around the body. This also served as a couch at night. Among primitive races, where the great struggle of life is to provide food and to defend themselves against the attacks of rapacious animals, it is natural that clothing would receive but little consideration except for protection. If it be true that civilization multiplies our wants, religion supplies motives for human conduct which elevates the race; the two add a new motive for dress by educating a sense of shame, which places the reason for clothing the body largely under the control of the mind. An inquiry into the dress of uncivilized races shows that the parts first covered by them are undoubtedly those requiring protection. A taste for ornamenting the body by painting, tattooing, anointing, and by decorations, such as wearing beads and strings of trophies of various kinds around the neck and limbs, is practiced by all primitive races. The apron or kilt is often used more as an adornment of the body than from any other motive. Much care is taken by most savage tribes to decorate the head, and to arrange the hair in a fanciful manner. Frequently the head and neck are dressed with elaborate care, while the rest of the body is left entirely uncovered. The apron is generally worn in front, but sometimes behind; some wear two, one in front and the other behind, while others wear two but suspend them from the sides, and frequently they fail to meet in front and in the rear. It is true, however, that the use of an apron or breech-clout of some kind is among the earliest articles of dress worn; perhaps next in order is the sandal, or moccasin, and particularly by males among tribes that live by the chase. The youth of both sexes of most uncivilized races in tropical regions are left entirely without clothing. About the age of puberty, and more from a desire of decorating the body than from any sense of propriety or shame, the apron is put on, but its use is not considered a matter of consequence or its omission an impropriety. The two sexes dress nearly in the same manner. It is generally known that among the Chinese and Japanese, and indeed other eastern peoples, the same dress, nearly, serves for the two sexes. A wonderful advance has taken place in the ethics of dress since the advent of Christianity, but it cannot be denied that much of the love of dress is due to the mental delight and satisfaction it affords

during the winter. Their intelligence was further indicated by the implements used in the chase, in war,

rather than to any overpowering sense of modesty or necessity. Doubtless there are many factors which assist in determining a preference for the material used and the form and number of garments to cover the body in different countries. Christian civilization has required distinctiveness in the dress of religious and privileged classes, and particularly of the sexes. The development of the idea of the desirableness as well as the manner of clothing the lower limbs of men separately in pantaloons that reach the feet has been a matter of slow growth and accomplished within the memory of persons now living. Improvement in the convenience of the dress of females has not progressed as with the opposite sex. The earliest examples of the body so clad as to permit the free use of the lower extremities as well as the upper is to be found in the sculptured figures dressed in armor of Egyptian and Phœnician origin. The line of progress and invention in dress throughout the Greek and Roman civilizations is pretty well known. Changes in national peculiarities of costume, even in modern times, are very slow, so that the taste of one age is frequently shocked by the lingering characteristics of a preceding one. This however, is as true of popular sentiments and behavior of a people, or of an age, as of the material and form of their dress. And, it should be borne in mind, retrogression in either is as natural as progress.

I will give one instance showing the tendency to retrogression in dress, although there are many that could be cited, within historical times. The following fact is recorded in the notes of the Rev. Dr. Joseph Doddridge, published in Samuel Kercheval's *History of the Valley of Virginia*, p. 339: "In the latter years of the Indian war our young men became more enamored of the Indian dress throughout with the exception of the match coat. The drawers were laid aside and the leggings made longer, so as to reach the upper part of the thigh. The Indian breech-clout was adopted. This was a piece of linen or cloth nearly a yard long and eight or nine inches broad. This passed under the belt before and behind, leaving the ends for flaps, hanging before and behind over the belt. These belts were sometimes ornamented with some coarse kind of embroidery-work. To the same belts which secured the breech-clout, strings which supported the long leggings were attached. When this belt, as was often the case, passed over the hunting-shirt, the upper part of the thighs

and in their manner of constructing movable wigwams or comparatively permanent villages of family lodges, communal houses, and in their modes of life as contrasted with the purely nomadic habits of hunting and fishing tribes.*

and part of the hips were naked. The young warrior, instead of being abashed by this nudity, was proud of his Indian-like dress. In some few instances I have seen them go into places of public worship in this dress."

* It is a fact deserving of remembrance that the world is indebted to America for two of its most important articles of food, maize or Indian corn, and the potato, now commonly called the Irish potato. Corn, beans, peas, melons and many roots were cultivated by the Indians in North America when first visited by Europeans. That now staple article of commerce and luxury of the world, tobacco, was also planted and extensively used by the Indians of North America.

Du Pratz, an accurate observer and a resident of the Lower Mississippi for fifteen years, in his history of Louisiana, gives an account of the great quantities of corn grown by the Natchez Indians. He was living among them in 1720, and at one time received from them "twenty barrels of maize of one hundred and fifty pounds each." He also describes the fruitfulness of the soil, the fine crops of potatoes, (possibly the sweet potato), beans, melons, and other vegetables and grains cultivated by the Indians. Agriculture was also carried on in Virginia and North Carolina to a very considerable extent.

Smith, in his History of Virginia, vol. 1, p. 131, says: "Their houses are in the midst of their fields or gardens, which are small plots of ground, some twenty acres, some forty, some one hundred, some two hundred, some more and some less. In some places from two to fifty of their houses are together, or but little separated by groups of trees." On page 191 in the same volume he tells us that in September, 1608, he received from the Nansamond Indians at one time four hundred baskets full of corn. And when the infant colony was suffering from want of provisions, the Chickahominy Indians furnished him with one hundred bushels. Great heaps of corn, he says, were to be seen in the villages of the Kekoughtan and other tribes. The early colonists had from time to time received corn and other provisions from Powhatan and his subjects along the James River.

The most successful attempt at confederation and unity of government among Indian tribes with which we are acquainted, originated with the Iroquois or Six Nations, living in the Northern and Middle States of our Union. The Algonkin, a once numerous race or league which occupied the Upper Mississippi Valley and the Lake region, parts of New England, and extended as far south as Pamlico Sound, though still numerous and warlike at the time the European settlement commenced in Massachusetts, had already begun to decline in power. Other tribes of considerable note in the early history of our country are deserving of mention. It is well known to you that the Indians residing in the southern parts of the Union had also formed tribal compacts and manifested some pretensions to nationality.* Of these the chief was

The Iroquois or Six Nations were also successful agriculturists, and the most powerful Indian confederation in America. At the beginning of the American Revolution they were more advanced in the warlike arts than other tribes. They owed perhaps much of their progress to the French missionaries, and to the early introduction of fire-arms and edge-tools received from the traders who had been for a century and more among them. They became quite provident, too, in laying up stores of grain and provisions for winter's use. This they were enabled to do by the cultivation of considerable tracts of land in corn, beans, and vegetables, and had orchards of apple trees. The peach plum, and apple were also cultivated in Virginia and North Carolina. The Pueblo Indians of Taos, in New Mexico, disposed of 6,000 bushels of fine wheat raised by themselves to the United States quartermaster in 1875.

*The confederacy of the Iroquois consisted at first of five independent tribes, then of six, and finally of seven. The Powhatan confederacy was formed of at least three independent tribes; the Creek confederacy consisted of six tribes; the Ottawa of three. The Dacotah league had seven fires and the Moqui confederacy seven pueblas.

Powhatan, who gave his own name to a confederation, which included the tribes of the Monacans, and Manahoaacks, and perhaps others, who lived to the west and northeast of the mouth of the James River, and among the foot-hills of the Blue Ridge and Alleghany Mountains. This Indian potentate, at the time of the first settlement of Jamestown in 1607, was generally recognized by the Indians as a sort of king, and maintained a numerous retinue of hunters and warriors. This confederation had made some progress toward civilization, if judged from the point of view of having fixed habitations, peaceful pursuits, and the possession of some of the useful arts, the most important of which was agriculture.

The intelligence to provide stores of grain, fish, and other articles of subsistence, was the first step to the recognition of property, and one essential to civilization. They had passed out of the condition of savagery.

Although some tribes north of the Potomac had advanced so far as to erect dwellings of a more or less permanent character, and even to cultivate certain crops, yet, leaving out the Pueblo Indians of New Mexico, none either north or south seem to have attained that degree of civilization which erected temples and recognized not only a priest but a priesthood, and practiced a fixed system of religious worship, except the Natchez tribe, with its affiliated branches of Indians living on the Lower Mississippi. As religion is one of the chief elements in unifying a people, it is

The New England Pokanoket confederacy, under Massasoit, over several tribes and a large section of country. Doubtless there were other confederacies of which I have no data.

probable that among the Mound-Builders and their successors, the Natchez Indians, there may have existed a sort of primacy or unity of religion throughout the Mississippi Valley. This possibly may have been serpent and sun worship, or some form of religion in which these were figures that symbolized a meaning of which we have no knowledge.* It is an interesting question in ethnology to account for the fact and to ascertain whence came the races of semi-civilized village and communal Indians now occupying the region of our country included within the territories of New Mexico, Arizona, and the southern parts of Colorado and Utah. It is believed by many, that within this boundary once existed an old civilization, older even than the Seven Cities of Cibola. The population in this region was once very considerable, particularly along the water-courses of the Gila, the Casas Grandes, the Del Norte, the Colorado, the head branches of the Arkansas, the Pecos, the San Juan, the Chamas, the Chaco, the Canadian, the Puerco of the West, and other streams throughout the rich adjacent mountain valleys. There are within this region a number of distinct tribes, speaking different languages, yet possessing so many

* It is true that in a few caves and in some of the temples and sacrificial mounds crude picture drawings and symbols of the sun and other planetary bodies, supposed to be associated with sun-worship, have been found. This evidence seems to favor the theory that the Mound-Builders or their immediate successors were sun-worshippers. The Indians of historic times were all more or less superstitious and practiced wizard incantations, which have been erroneously called religious observances. I am aware it is claimed that a few tribes in New Mexico and Colorado practice a sort of sun-worship. If so, these facts furnish a foundation for a claim to relationship with the ancient Mound-Builders.

traits in common that they are all denominated Pueblos, chiefly because they build large stone or adobe communal houses of from one to six stories high. The best known of the tribes are the Pueblo, the Zuni, the Moqui, the Pima, the Isleta, and the San Ildefonso, all peaceful cultivators of the soil. These Indians are known to have had about the same habits and modes of life since the time of the expedition of Vasques Coronado in 1540-'42. when in search of gold he plundered their cities. The work giving an account of his expedition was first published in English in 1600.*

By means of irrigation these Indians of New Mexico were enabled to cultivate the rich valleys and raise good crops of wheat, corn, cotton, flax, and a variety of vegetables.. They had acquired a proficiency in many arts, such as the making of pottery, spinning and weaving, before they were visited by the expedition referred to. These people have had the Gospel preached to them for two hundred years, and yet many of them are said to adhere to a sort of sun-worship, and have houses in which they maintain a perpetual sacrificial fire. If it be a fact that they are sun-worshippers, it would naturally suggest an Asiatic origin or intercourse. Explorers have found in this region a few mounds resembling those of the Missis-

*Lieut. Col. W. H. Emory, in Notes of a Military Reconnaissance from Fort Leavenworth to San Diego, Cal., page 133, gives the following as the existing names of the seven towns most nearly conforming to the locality of the ancient and marvelously rich seven cities: Cibolleta, Moquino, Pojuto, Covero, Acoma, Laguna, Poblacion, the last in ruins.

issippi Valley. It is possible that the Mound-Builders migrated and disappeared in this direction.*

The Iroquois of New York State were village Indians, building long wooden houses, and lived in a sort of communal way, though they respected the family by giving to each a separate fire. They also cultivated the soil, growing corn, root vegetables, and fruits, among which is said to have been the apple.

The Virginia Indians also lived in villages, around some of which were erected stockade defenses like those of a fort. They were, as already stated, provident in their habits, laying up stores of dried meats, fish, corn, beans, and fruits for future use.

Village life and agricultural pursuits seem to be the path that leads to civilization, and tribes that adopted them have also led in the arts of making pottery, weaving, etc. A number might be named that have advanced toward civilization within historic times.

The Cherokees, once a powerful southern Indian tribe, have now nearly the complete civil control of the Indian Territory, west of the Mississippi, to which

* Capt. A. R. Johnston, in his *Journal of an Expedition from Santa Fé to Mexico* in 1846, p. 598, after describing the ruins of a considerable city near the Gila River, notices a mound of which he gives the following detailed description: "About two hundred yards from this building was a mound, in a circle a hundred yards around. The center was hollow, 25 yards in diameter, with two ramps or slopes going down to its bottom. It was probably a well now partly filled up. A similar one was seen near Mount Dallas. A few yards farther in the same direction northward was a terrace 100 by 70, about 5 feet high. Upon this was a pyramid about 8 feet high, and 25 yards square at the top. From this, sitting on my horse, I could overlook the vast plain lying N. E. and W. on the left bank of the Gila. The ground in view was about 15 miles, all of which, it would seem, had been irrigated by the waters of the Gila."

they were removed from Georgia in 1838. Many of them are industrious and thrifty agriculturists, and some are good mechanics. They have invented an alphabet and have a written language and laws. The Creeks, also a southern tribe, now living in the Indian Territory, are advancing in civilization and peaceful pursuits. The Choctaws, and also the Chickasaws, were once powerful tribes in the State of Mississippi, but are now in the Indian Territory, and are advancing in civilization and a knowledge of the peaceful arts, and have in existence nearly one hundred schools. The Seminoles, another southern tribe, were removed to the Indian Territory, and are adopting the habits of civilized people.

It is a notable fact that Indians showing the greatest capacity for acquiring a knowledge of the arts and methods known to civilization, and at the same time increasing in population, are mostly of a southern origin. But while it is true that, in the few instances given, they have shown a capacity for advancement in the scale of civilization, yet it must be confessed, and with sadness, that as a people the Indian is believed to be disappearing, in consequence of not being able to conform readily to peaceful and civilized habits. On this point, however, Maj. J. C. Powell takes issue with the generally accepted view of their gradual decrease, and states that the Indians of North America, notwithstanding they are confined to very much narrower limits, are as numerous as at any period in the past. As a general fact, the Indians of the United States are but little more advanced than they were when first seen by the Europeans. It is true that,

through an association with the whites, the possession of fire-arms and edge-tools, and the re-introduction of the horse, many tribes of Indians are now able to accomplish feats in war and in hunting which, before Europeans came among them, were impossible; but the majority of the fishing and a few of the hunter tribes are still in the stone age. The tribes associated with the whites, and those referred to in the Indian Territory, have acquired some knowledge of the arts, and to a slight extent work in metals. The Pueblos, as already stated, were village Indians in possession of some of the arts when America was discovered.

In studying the past condition of the Indians we should keep in view the state of the domestic arts and comforts common in Europe at the time of the discovery of America. The best Indian houses, cabins, or wigwams, at the time European settlements commenced in America, were, and still are, without floors, chimneys, or windows. We naturally think these very crude dwellings, as they undoubtedly are; nevertheless, it is also true that chimneys and windows were then nowhere in common use, and are of comparatively late introduction into the dwellings of the middle and working classes in Europe.*

* Our ancestors four centuries ago had different views of domestic and personal comfort from those that prevail at the present time. The chimney for carrying off the smoke of a house is of modern invention. It was not introduced into England before the twelfth, and into Italy in the thirteenth century. Even in the seventeenth century throughout England the houses of the well-to-do yeomen were without chimneys. This was true of houses generally throughout Europe. The introduction of glass into windows of dwelling-houses is a still more modern invention and luxury.

The state of the arts and commerce among the different nations of Indians has been well described by Mr. C. Rau, in a paper on "Ancient Aboriginal Trade in North America," published in the Smithsonian Report for 1872. He shows that their commerce must have been considerable by way of exchange among tribes living widely apart.

The archæological remains of North America point unmistakably to the existence of one or more races upon this continent anterior to the appearance of the Indians. The evidence of this rests upon remains and implements found, and the material of which they are made. Much may be inferred from the locality as well as position from which they are recovered, as from caves, mounds, gravel-banks, mines, and earth deposits, which point to their remoteness, and bear evidence of a sequence in time of occupation by an antecedent and subsequent people of the same locality, as well as their degree of development, to be inferred from the implements themselves.

Shells from the Pacific obsidians and flints from Mexico have frequently been found in the mounds of the Mississippi Valley. Their skill in the arts is shown by their implements of war and of the chase, fishing, agriculture, domestic utensils, and by their more elaborate carving in stone and on shells, and their work in pottery of various forms, burnt and glazed. Some of the figures modeled in clay or cut in stone are fanciful enough, but many resemble animals they admired or dreaded, and, although rude, are readily recognized. In a few localities polished stone implements have been found, and some attempts

seem to have been made to hammer the native copper into ornaments and weapons. A few tribes manufactured stone pipes of different colors, which they carved elaborately and ornamented with peculiar figures, perhaps totemic in their character.

As intimated heretofore, the Indians that have given the greatest evidence of improvement all cultivated the soil and had comparatively fixed habitations. Tribes as they grew powerful elected their chiefs with more care, and respected those in authority, decorated their bodies with more art, and their ceremonies became more comprehensive and impressive. Their villages gradually acquired greater permanence and their dwellings were constructed with a view to more comfort, and greater solicitude was manifested to provide variety and abundance of subsistence. Even this meager development was a positive advance along the road that leads to civilization, and naturally demanded a division of labor.

As it is quite impossible to follow out in detail the habits and usages peculiar to the different tribes of North American Indians, and particularly those which mark the line of progress toward civilization, I will therefore confine my remaining remarks to some points in the practice of medicine among them.* I wish,

* The names applied by Indians themselves to their physicians are curious, and I think of sufficient interest to present those I have collected in a list. The following have been used by different tribes, and no doubt many other appellations might be found :

To designate the physician, who is often also a prophet :

Jossakeed,	Schoolcraft.
Wabanos,	"
Medas,	"

however, to premise that my investigation of the subject is by no means exhaustive. But, contrary to

Muskeke Winenes,	Schoolcraft,
Waukaon man or Wapiga,	"
Mada-Winunee,	"
Medawin,	"
Wicaxta Wakan, Supernatural or God-man,	"
Taku Wakan, Mysterious, Supernatural God-dream,	"
Zuya Wakan, War Prophet,	"
Wapeya Wakan, Renovator or Restorer,	"
Wawkawn, Medicine-man,	E. D. Neill.
Keelalley, Physician,	Alex. Ross.
Tla-quill-augh, Physician, or man of super- natural gifts,	"
Shaman,	H. H. Bancroft.
Ma-ke,	F. E. Grossmann.
Autmoins,	Charlevoix.
Pow-Wow,	De Forest.
Jaotlanas,	C. C. Jones.
Machi,	Rev. J. G. Wood.
Bilbos,	"
Piaye, Piaf, or Paye,	Oscar Peschel.

The names applied by Europeans to Indian physicians are numerous, and sometimes applied in derision, as "medicine-man," "doctor," "mystery-man," "conjurer," "juggler," "priest," "prophet," etc.

Accidentally meeting Dr. Thomas Foster, late Indian historiographer of the United States, I exhibited to him the foregoing list of appellations for Indian physicians collected from different authors, which he thought in some respects defective, and the next day kindly sent me the following list of Algonkin and Dacotah names, which I deem in this connection deserving of presentation.

"DOCTOR" AND "MEDICINE" IN CHIPPEWAY ALGONKIN.

Māshkōse' u, grass or herbs.

Māshke'k, marsh.

Māshke'ke, medicine (roots).

Māshke'ke-wābō', liquid medicine to drink.

Māshke'ke-wene'ne, medicine-man.

expectation, the study given the subject from an historical point of view has led me to the conviction that the appearance of the physician among primitive, savage, and barbarous races antedates the priest and the lawgiver. The physician among all tribes is a person of dignity and of the highest consideration, and is present at all important councils, and after death is buried with imposing ceremonies.* He usually dresses with

Mā'shkōdā', a prairie.

Nānā'ndāwē' ewā'-wene'ne, who gives medicine, the man.

Nānā'ndāwē'ōwe'n, medicine, remedy, etc.

Tcha'sāke'd, juggler. (Jossakeed by Schoolcraft.)

Tcheskā'ewe'n, jugglery.

Tche'sākā'n, juggler's lodge.

Kōsā'bāndāmōwe'n, jugglers in regard to sickness.

Medā', an Indian Algonkin who is a member of the secret semi-religious order of the "grand medicine." This name has its root in words which signify to *eat* and *set aside*; in other words, the grand medicine is a *feast apart* or *secret*, or it may mean the long preliminary *fast* necessary to admission, in which all eating is put aside or refrained from.

"DOCTOR" AND "MEDICINE" IN SIOUX-DACOTAH.

Pāzhe', grass, herbs, hay.

Pa'zhe-hu'tā, grass-roots, herbs, medicines of all kinds.

Pa'zhe-hu'tā Wetchā'stā, a medicine man, a physician.

Wā'tā'n, adj., spiritual, sacred, consecrated, wonderful, incomprehensible, preternatural.

Wākā'n-atčō'n, to do tricks of jugglery.

Wākā'ndā, to reckon as holy or sacred; to worship.

Wākā'n-wātche'pe, the sacred dance or grand medicine of which the so-called (and mysterious) "medicine-sack" is the badge.

Wākā'n-wōhā'npe, a sacred feast.

* "In all the Indian tribes the doctor or medicine-man holds a rank second only, and at times superior, to the chiefs. The arts they employ, the magic they use, and the varied information they must necessarily acquire, can be obtained only by persons possessing natural

elaborate care, and occasionally in the most grotesque manner, and always has with him his medicine-bag filled with charms and simples, the precursor of the doctor's saddle-bag, and the city physician's satchel.*

gifts, and after severe trials by fasting and privation. I am of opinion from what I have observed that the principal powers by which these doctors obtain such influence among the tribes are those of mesmerism; and the stronger the physical energies to exert the magnetic development, the greater is the person possessing them considered." (Schoolcraft, vol. vi, p. 632.)

* The dress of the medicine-men varied greatly in its minutiae among the different tribes, but all bore to each other a general semblance of care and pretension. The costume in some cases was extremely ludicrous, in others horrible, and always calculated to inspire awe and terror. It was generally the skin of some wild beast, with many trinkets and a medicine-bag, including the skins of some rare animal, bird, or insect attached. The horns of animals were occasionally fixed upon the head, and thus arrayed, with rattle or drum to accompany the medicine-song, the physician appeared before his patient.

G. H. Loskiel described an Indian doctor who made his professional visits attired in a large bear-skin, so that his arms were covered with the skin of the fore legs, his feet and legs with that of the hind legs, and his head concealed in the skin of the animal's head, in which pieces of mica or some bright substance were set to represent eyes. In his hand he held a "calabash" or rattle, and was accompanied by a great crowd of people who were singing and dancing.

John W. De Forest, in his *History of the Indians of Connecticut*, says the Indian doctor attired himself so as to resemble a wild beast or some nondescript monster.

François Coreal, in his *Voyages aux Indes Occidentales, 1666-'97*, vol. i, pp. 39-41, speaking of the Florida Indians, says: "The *Javûnas* were clothed in long robes made of skins of various animals cut into bands. Girdles of deer-skin were used to fasten these robes, and from these were suspended pouches containing herbs. Over all these the physicians wore, after the fashion of a cloak, the hide of some wild animal. The feet and arms are bare, but they wore on their heads caps or helmets of skins, terminating in a point."

I am aware that thus to assign a greater antiquity to the office and functions of the physician than to the

Respecting the medicine-men of the Indians of Virginia, Hariot, in his work, "A Briefe and True Report of the New-found-land of Virginia," 1590, observed that they shave all of the hair from the head except the crown, and fasten above one of their ears the stuffed skin of a blackbird as the ensign of office. The physicians, according to this account, wore simply an apron made of the skin of some animal and a medicine-bag suspended from a girdle.

According to John Lawson, speaking of the Indians of North Carolina, p. 347: "As soon as the doctor comes into the cabin the sick person is placed upon a mat or skin upon his back and almost entirely uncovered. The conjurer or doctor appears then with the king of the nation, who attends him with a rattle made of the gourd, containing loose peas or Indian corn, which he presents to the doctor, while some one brings a bowl of water." He further remarks (p. 37) that the chief doctor who came with the king of the Santee Nation to visit him was "clad in a match-coat made of turkey-feathers, resembling a garment of silk shag." They usually carried their medicines or drugs suspended from the neck in the form of a necklace, consisting of roots, barks, berries, nuts, etc.

George Catlin, in his History of North American Indians, vol. ii, p. 40, describes an Indian doctor, whom he saw making a professional visit, dressed in the skin of a yellow bear; the head served as a mask, the huge claws dangling at his wrists and ankles. He shook furiously a rattle with one hand, and with the other brandished his medicine-spear or magic wand. "The dress," says Catlin, "in all its parts is one of the greatest curiosities of the whole collection of Indian manufactures which I have yet obtained in the Indian country. It is the strangest medley and mixture perhaps of the mysteries of the animal and vegetable kingdom that ever was seen. Besides the skin of the yellow bear, which, being almost an anomaly in that country, is out of the regular order of nature, and, of course, 'great medicine' and converted to medical use, there were attached to it the skins of many animals which are also anomalies or deformities, which render them in their estimation medicine mystery. To this outfit there were also attached the skins of snakes and frogs and bats, beaks and tails and toes of birds, hoofs of deer, goats, and antelopes, and in fact the 'odds and ends' and fag ends and tails and tips of almost everything that swims or flies or runs in this part of the wide world."

priest is in contravention of the view which has generally been held upon this subject. Yet I think a little reflection will show that such is the fact, at least among savages. It is well known that the services of some one representing the physician are often a matter of the first necessity for the preservation of life, even among the lowest in the scale of intelligence, and for the relief of sickness or accidents to which the savage is equally liable with civilized man, and it is more than an hypothesis, it is almost a certainty, that savagery was the original state of man. In presenting this hypothesis of the origin of medicine and the medical profession I do not wish to be understood as denying that a religious sentiment is natural to man. But I believe that it, like other capabilities of our race, remains during the savage, and even the barbarous, stages of society so nearly dormant as to exercise no appreciable influence over human action.

The religious faculty, like that for language, letters, mathematics, music, the arts, and the usage of social life, depends upon development and education. In the study of the history of the human race we are constantly reminded that man is an animal. He has, by some authors, been aptly designated "a fighting animal," possessing originally but few aims or desires beyond those of feeding, fighting, and sleeping.

From what is known of the condition and habits of primitive and savage races, and from general reasoning, the following may be assumed as the probable development of human wants and the origin and line of advancement in medicine and medical practice.

Instinct is the first teacher. In some races of savages

the intellect is so little developed that it can hardly be distinguished from what we call instinct in animals. Either faculty suggests repose in a recumbent position in sickness, and the non-use of diseased and injured parts, for relief as well as for cure. It is evident, therefore, that to secure rest and administer to the few natural wants of a disabled or suffering fellow-being makes but a slight demand upon human intelligence and sympathy. Among the earliest remedies or methods of treatment or cure, and almost universally practiced by all the lower savage races, were those of sucking with the mouth, licking with the tongue, and breathing or blowing upon the diseased or painful part. Instinct leads children and many animals to do practically the same thing. There are many examples of animals eating herbs, clay, etc., when sick, which they do not when well; and it is reasonable to presume that they do so for their remedial effects. After making a distinction between the suggestions of a depraved appetite and the craving for some unusual though really suitable article of food or drink originating with the patient, which might benefit individual cases, the fact is undeniable that observation had led primitive physicians to administer and apply remedies for the cure of disease, showing a capacity to acquire medical knowledge, as well as an ability to observe and reason from cause to effect. Following close upon this advancement in medical practice, speculation as to the cause of disease seems to have next engaged attention and influenced popular feeling, and modified or controlled the notions and practices of physicians.

The earliest views the Indian has on the cause of death and of internal and obscure diseases are based on the idea that evil spirits and personal enemies cause them by conjuration and by secret or occult practices. When this belief becomes common, it develops among the race an element of fear of the unseen powers of the universe, and gradually introduces a new class of remedies, and almost a new order of physicians, who set themselves up as learned in all mysteries and capable of holding communion with the powers of earth and air. The medicines of this class are always associated with ceremonies and fetish practices, generally denominated Shamanism, and consist largely in the use of charms, amulets, spells, and incantations.

It would, I imagine, require but a slight degree of intelligence and brief experience on the part of even primitive physicians to be able to observe and to infer that a particular class of symptoms would be followed by almost uniform results; and, further, that certain symptoms were grave, and almost always led to death, while others were followed by a speedy recovery. It is almost certain that they were close observers of the attitude and heat of the body, the dryness, moisture, and complexion of the skin, rapid, slow, or painful breathing, chills, fevers, palpitations, and coughs. These and other equally significant and prominent symptoms would offer data upon which to prognosticate results with such a degree of success as to seem to ignorant savages to possess the wisdom of a prophet. The physician thus naturally became the

prognosticator in disease, and his success in this led to his attempting to foretell coming events.

Here the practice of magic begins, and seems a natural outgrowth from physic, and even antedates the development of religious ideas and observances. Fear is older than gratitude, and impulse is a more primitive faculty than reflection and judgment. It will readily be perceived that a people in the condition from which I draw this picture have not their mental powers sufficiently developed to fully appreciate laws either moral or physical. The perceptive faculties in such are as yet feeble and untrained; the imagination and emotional part of their nature is much too obtuse to speculate on a future state, or practice self-denial with a view to merit an eternal life. A belief in magic, therefore, probably represents the first recognition by man of the existence of some occult powers in nature above and not subject to himself.

As health and security from enemies were of the first importance in a barbarous state of society, these were the particular conditions which the magicians assumed to control and secure to their patrons. The Magi of the East, and other similar early orders of seers and priests, probably had their origin in this primitive condition of society.*

* The origin of magic must be placed far back in history, if not at the very dawn of human society. The art in some form has been found among all uncivilized races; and lingering traces of it may be seen occasionally at the present day. In every age and country there are credulous persons who fall easy victims to the professors of the magical art. Among all primitive nations there have been found classes of persons laying special claim to the possession of divining power, and thereby exercising great control and influence over their contemporaries. Even the most powerful and civilized nations of

It is in this stage of development and human knowledge, corresponding closely to that stage of mental

antiquity were in a great measure governed by the pretense of supernatural influence arrogated to themselves by persons whom we designate magicians. Such were the Vaidhyas of India, the Magi of Persia and Babylon, the Priesthood of Egypt, the Druids of Gaul and Britain, and probably the *Æscapiadæ* of Greece; and such also, to some extent, are the Lamas of Thibet and Tartary, and some of the present Brahmins of Hindustan. They have, in fact, existed in all pagan nations. Christianity alone has persistently and unequivocally opposed and combated the practice and the professors of magic.

Alchemy, which was the original form of chemistry, was almost synonymous with magic in early times; or it might perhaps be more properly considered a branch of the art of magic. Both words, "alchemy" and "chemistry," are derived from *Chemi*, the primitive name of Egypt; and in that land of mystery and of wonders the practice of magic reached its greatest perfection. History, both sacred and profane, is full of the juggleries of the priests of the Nile; and the reader will readily recall the remarkable and for a time apparently doubtful contest which, by means of their mysterious and magical arts, the Pharaonic priesthood waged with the representatives of Israel. The magic of Jannes and Jambres was almost a match for the miracles of Moses and Aaron.

But the word "magic" is itself of Eastern origin, and derived from the famous priesthood, or priest-philosophers, of Media and Chaldea the Magi, sometimes known as the Wise Men of the East. The Magi were the priests of Babylon and Persia, and are supposed to have been of Median or Chaldean origin; but their origin, as well as their history, and the position they held in the politico-religious economy of the Assyro-Babylonian monarchy and the Medo-Persian empire is very obscure. Neither is it definitely ascertained what their relation was to the Zoroastrian system of religion, or whether they were originally the enemies or the promoters of that remarkable scheme. But it is certain that they engrossed most of the wisdom and learning of Southern Asia; and that, by their possession, almost exclusively, of all the knowledge of the time, they were enabled to sway the minds of their more ignorant contemporaries under the pretense of the possession of supernatural powers. They became so proficient in the wonder-working art that, to the Greeks, they gave their name to that art; which

growth and culture denominated by Morgan in his *Ancient Society* as barbarism, that the earliest sense of a reward or punishment after death is noticed, and some practices begin which may be referred to ideas awakening to moral responsibility to an overruling Providence. It is in this stage of devel-

name has thus become perpetuated to all time, though it is very probable that the Magi themselves were merely the pupils in this art, as in other matters, of the subtle Brahmins of Hindustan. At this moment, the jugglers of India and Thibet are far in advance of those of the rest of the world.

One of the principal pretensions of magic art at all times has been the cure of the sick; and for this purpose its professors, while pretending to exercise supernatural powers and disguising their action with mysterious and meaningless movements, most frequently effected their object, as the physician now does, by their superior or exclusive knowledge of the great secrets of chemistry and the laws of physics. In the hands of unscrupulous men, this magical power was capable of the most fraudulent excesses; and hence even many ancient philosophers denounced the magicians or pretended sorcerers in the severest terms. Pliny's remarks on this subject are appropriate. I quote from the quaint translation by Dr. P. Holland, folio edition, London, 1601, vol. ii, p. 371:

"That notwithstanding it be of all arts fullest of fraud, deceit, and couzenage, yet never was there any throughout the whole world either with like credit professed, or so long time upheld and maintained. Now, if a man consider the thing well, no marvaile it is that it hath continued thus in so great request and authoritie; for it is the only science which seemeth to comprise in itself three professions besides, which have the command and rule of man's mind above any other whatsoever. For to begin withall, no man doubteth but that magicke tooke root first, and proceeded from Physicke, under the pretence of maintaining, curing and preventing diseases: things plausible to the world, crept and insinuated farther into the heart of man, with a deepe conceit of some high and divine matter therein more than ordinarie, and in comparison whereof, all other Physicke was but basely accounted."

opment, too, I believe, that the priestly functions are first observed. As a class, the priest-physicians are extremely self-reliant, and aspire to exercise the authority of prophets and lawgivers and to rule supreme. They assume also many of the functions of the physician, and at times wholly absorb his office, and are often successful in their efforts to gain control in the affairs of government. We find that the dual quality of priest and physician has prevailed in all stages of civilization and under every form of government, and has even continued down to our own time.

However, there seem to have been at all times among barbarous tribes physicians who made no pretensions to priestly prerogatives or mysterious practices, but who relied upon the use of remedial agents for the cure of disease. Medical science has already made much progress among a people whose physicians are able to determine something of the cause of disease and the organs of the body involved, and to select and administer remedies internally which are capable of giving relief or effecting cures. This period I shall denominate the third stage of medicine, and has its beginnings in agricultural and semi-civilized races, but in most cases antedates written records. It is evident to every reflecting person, that the exhibition of a proper internal remedy for a disease requires a much more complicated process of reasoning, and a more accurate knowledge of the various organs of the body and the effects of medicines, than does the application of external remedies.*

*As corroborative of the views presented of the origin and antiquity of medicine, I will make a few brief references to its history among

Time will not permit me to dwell further upon this subject, but the few facts presented will, I trust, ren-

the ancient nations whose mythology bears testimony to the very early appearance of the physician, as well as to the general and high esteem in which the art of physic was held. The habits and mental peculiarities of uncivilized races being considered, it is probable that the prominent mythological divinities of remote antiquity had their origin from individuals who, by the possession of genius, became leaders among the people. Success not only makes but crowns the hero, and the eminent service that wins applause may soon command obeisance from the multitude. The hero of one generation easily becomes the divinity of another. Frequently the early history of mankind attributes to the same exalted character many special qualities, and sometimes divine powers. Hence it is that a number of the great names honored as divinities by the early Hindoos, Egyptians, Phœnicians, and Greeks, were noted for their skill in physic.

It is a fact worthy of remark that nearly every nation has referred the source of its medical knowledge to the gods. The Egyptian god of medicine was Hermes, the Mercury or Hermes Trismegistus of the Greeks. He is perhaps the oldest physician on record. By the Egyptians his name is variously designated, as Thoth or Thuti; and Taaut. To him is attributed the invention of medicine and the sciences, and also letters and a written language, and he is denominated the adviser and secretary of Osiris. In a word, he is represented as possessed of such a wide scope of knowledge as to have been invested in the eyes of the people and his contemporaries with almost superhuman qualities. Of course no certain period can be fixed as the time when he lived, but probably 3,000 years before the commencement of the Christian era would not be early enough. Mr. Ebers, the German archæologist, in the winter of 1872, obtained, in the vicinity of Thebes, a roll of papyrus over 60 feet in length and 11 inches broad, closely written in unknown characters, relating to medicine. The date of this document has since been determined to be 1552 B. C. It is in good condition, and has been photolithographed. A few pages have since been deciphered and the whole published. In time scholars will master the record, and should it prove to be genuine it will be the oldest work on medicine extant, and possibly prove to be one of the six books attributed to Hermes. A copy of the work may be seen in the library of the Surgeon-General, at Washington, D. C.

der it probable, if not conclusive to most minds, that the physician must have held a most conspicuous and

The medical precepts of the Egyptian god of medicine, it is stated, were collected after his death and embodied in a volume under the title of "Embre," which possibly embraced the six Hermetical books. For centuries this work constituted the code of medical practice for the oracles and priest-physicians of Egypt. Following Hermes and almost equally celebrated in the medical annals of Egypt were Apis and Serapis, who after their deaths also received divine honors. It is surmised that the Greeks adopted, under slightly varied names, many Hindoo, Phœnician, and Egyptian deities. And indeed it is possible that Isis and Osiris are only appellations of particular ages, or of special localities, for the more ancient Egyptian deity Hermes. The Hellenic deities Apollo, Pæan, Orpheus, Mercury, Æsculapius, Melampus, Hercules, and Castor, may each have had their prototype in, or may have been adopted from, the older civilizations of Hindustan, Phœnicia, or Egypt. This hypothesis will at least account for the god Taaut or Hermes of Egypt becoming the Mercury of Greece. From the Hellenic character given to Mercury as dressed in winged sandals and cap, he was the recognized messenger of the gods, and brought the art of medicine down from heaven. In such veneration was he held that the early astronomers honored his name by giving it to the planet nearest the sun, and because it makes its circuit in less time than any other. His caduceus or staff has at the head two wings, and is entwined by two serpents. This scepter is the ensign of peace; and mythology claims that it was obtained from Apollo. Nearly the same emblem is represented as the staff of Æsculapius.

Medicine was specially honored in Greek and Roman mythology and the antiquity of the art of the physician is indicated by the fact that there are in the figures of the Zodiac two stars named after physicians, Chiron and Æsculapius. These figurative characters had doubtless prototypes in real personages, who had won, by their skill, great distinction among their contemporaries, who were led in their admiration to consider them not only heroes, but gods. The esteem in which the art of medicine was wont to be held in those early times may be inferred from the testimony borne by that passage in the *Æneid* where Iapis is introduced to heal the wounds of Æneas. It is stated that Apollo, wishing to reward Iapis for his services, told him

important place in every stage of civilization since the genesis of man upon earth.

to choose between all of his arts and gifts the one which he preferred, whereupon Iapis from the store-house of the universe chose the art of medicine. The Greeks derived the origin of their medicine from Chiron, the Centaur of Mount Pelion, in Thessaly. He is represented as the teacher of Æsculapius, and was placed by Jupiter among the stars in the constellation of Sagittarius. It was an easy matter for such a people to invest the dwelling-place of their beloved physicians with all the character of a revered temple. Chiron was instructed in medicine and the art of prophecy by Apollo and Artemis. He was also renowned for proficiency in music, hunting, and gymnastics. His statue is one of the noblest specimens of art, combining the human and animal form, that have come down to us from antiquity.

Mountaineers and uncivilized races living in forests have always been supposed to have special opportunities to discover herbs of rare curative virtues, and people living in agricultural districts and indeed in cities yield an admiring faith in the remedies proffered by them. Instances of this credulity are very frequent in our own times, where pretended Indian physicians and inventors of new medicines, who have received no training in the art of physic, are rewarded and honored, while men of science are neglected and their opinions disregarded.

It will be recollected that the constellation of Serpentarius was originally known by the name of Æsculapius, the god of medicine. There are conflicting accounts of the descent of this physician, but he is generally represented to have been the son of Apollo. In the earliest accounts of him he is spoken of as a man, and referred to by Homer as the "Blameless physician." His sons, Machaon and Podalirius, were also physicians, and served as surgeons in the Greek army at the siege of Troy. So skillful and renowned did Æsculapius become that it was believed of him that he could not only prevent disease, but that he could also raise the dead to life.

In all ages distinguished merit has had its penalties to pay, and Æsculapius was no exception to this rule. Pluto conceived that this power of curing all diseases and raising the dead interfered with his rights, and appealed to Jupiter, who killed Æsculapius with a stroke of lightning. After the death of Æsculapius he received divine honors. Temples were erected to him at Epidaurus, Cos, Cnidos, and Rhodes. Here it is apparent that religious honors and

The priest deals with the ethics of man's nature through the higher faculties of the mind, "will, memory, and understanding." These, and particularly the latter, are feebly developed and but little exercised by people in a state of savagery. The instances recorded in history are numerous where the Indian physician,

priestly functions were engrafted upon a fame won by the art of medicine. Homer represents Apollo, a god of medicine, as arresting a pestilential disease that existed in a Greek camp, at the earnest prayers of the priests, who thus recognized the distinctness and efficacy of the medical profession.

A careful study might enable us to point out the origin and sequence of the various professions, which have arisen, one after the other, to meet the increasing wants of a developing civilization. We find that in Egypt medicine and all of the physical sciences, particularly hydraulics, geometry, surveying, etc., as well as law-making and the administration of civil government, were all early assumed by the priesthood. This hierarchy wisely employed those skilled in the various departments, but surrounded all their operations with such ceremonials and secrecy as to strike terror into the minds of the uninitiated. There fortunately grew up in the different departments of this theocratic government a desire for original investigations and a system of records of the facts observed, which were preserved in the temples, so that a sort of common law was evolved for the benefit of every department of the government, and a code of principles or law, for the guidance of human desires and industries. In this way, too, were collected the earliest observations of disease, and a record of them preserved, with the means found most effective in their cure.

Those wishing to prosecute the study into the origin of medicine will do well to consult Herodotus and Strabo. The former of these authors tells us that in Egypt the faculty was learned and divided into specialties. And Pliny informs us that the physicians of Egypt made post-mortem examinations to discover the hidden causes of disease. From Homer's *Odyssey* we learn that the physicians studied the nature and properties of drugs, that Egypt contained many that were salutary and others that were pernicious, and that her physicians were possessed of knowledge exceeding that of other men.

his remedies and modes of practice, are mentioned, but no allusion is made to the priest. And quite often the declaration is distinctly made by travelers, that particular peoples and tribes had no religious observances or priests, and no belief in God, or even a word in their language that would express the idea of a Creator and Supreme Ruler of the Universe.

In confirmation of this I shall only refer to the testimony of two, that of Rev. Father Baegert, a Jesuit missionary who lived among the Lower California Indians for seventeen years, dating from 1751, and that of Rev. Father Lewis Hennepin. I quote from a translation of Father Baegert's work, as published in the Smithsonian Report for 1864, p. 390.* In speaking of the California Indians, he says: "They had no magistrates, no police, and no laws; idols, temples, and religious worship or ceremonies were unknown to them, and they neither believed in the true and only God, nor adored false deities."

As fully corroborative of this statement Father Hennepin, at page 58 of the Continuation of the New Discovery of a Vast Country in America, says: "I cannot tell whether their [the Indians'] predecessors have been acquainted with any deity or not, but sure I am that their language, which is otherwise very ex-

* Charles Rau, translator, says: "According to Father Piccolo, the Californians worshiped the moon, and Venegas mentions the belief in a good and bad principle as prevailing among the Pericues and Cotchimis." (Waitz's *Anthropologie der Naturvolker*, vol. iv., p. 250.) These statements are emphatically refuted by the Rev. Mr. Baegert in his first Appendix, p. 315, where he says: "It is not true that they worshiped the moon, or practiced any kind of idolatry."

pressive, is so very barren in that, that they have no word to express God or any the least of our mysteries." "These people acknowledge no deity with a sense of religion." "They have no exterior gestures which might convince us they had the least esteem for a deity; neither temple, priest, sacrifice, nor any other mark of religion is to be met with among them." "A man must not go to America, that has a mind to become a martyr for his faith. These savages never murder anybody on that score; they leave every one at liberty to believe what he pleases."

It is proper to remark, however, that the Indian races no longer represent man in a low state of savagery. All the North American Indians use the bow and are acquainted with the use of fire, and have probably not been cannibals, with rare exceptions, for centuries before the discovery of this continent by Columbus.

Of the habits of man in a primitive state we have no knowledge, except what can be gathered by inference from isolated savage tribes. The Indians of to-day must be regarded as having passed out of a state of savagery, though they represent a stage of barbarism.*

It is well known that nearly all American races have acquired some of the arts, such as the making of implements, pottery, dwellings, clothing, etc. With this progress their early customs and habits have changed. But all tribes have not moved forward with the same regularity and rapidity; climate and food probably determine this to some extent. However, by drawing ex-

* For a comprehensive distinction between the condition of savagery and that of barbarism, see Lewis H. Morgan's *Ancient Society*.

amples from those but little advanced we will find facts sufficient for the present purpose.

The Indian is patient in suffering, courageous in visible danger, but apprehensive of the unknown and occult powers of nature which environ us, but which are so much more of a mystery to him than to civilized man, as often to transform the hero into a coward. It is unquestionably true that the uncivilized as well as the semi-civilized Indians have many unmeaning practices and superstitions; chiefly because they know nothing of remote or secondary causes. Like all unlettered races, they are fond of ceremonies and spectacular exhibitions, and the person among them who becomes the most expert in these and acquires the most comprehensive knowledge of the laws of nature is at once elevated to the rank of "a medicine-man" or physician. Poorly qualified as are their physicians, they have among them pretenders to medical knowledge, mere jugglers, who practice by incantations, the exhibition of charms, and other fetish measures which appeal almost exclusively to ignorance and credulity.*

* Every physician and reflecting person can recall dozens of charms made use of, or worn, even by intelligent people, which are purely fetish in character and without influence. Some of these proceedings and "cures" are handed down from generation to generation, and can be traced far back into the early ages. I will only record a few: As a strap of eel-skin worn around a limb to strengthen a joint and to prevent or cure a sprain. The carrying of a buckeye-nut in the pocket to prevent or cure the piles. The carrying of a raw Irish potato in the pocket to cure or ward off rheumatism. The wearing of a black ribbon around a child's neck to prevent croup. The wearing the rattles of a rattle-snake about the head to prevent headache. To remove warts, the tying of a string or thread over the wart and then

The Indian, in common with all branches of the human race, has faith in panaceas, and this belief with him, in the absence of a knowledge of physical laws, renders him the ready victim of those who profess to operate through the arts of magic and appeal to supernatural agencies.

But while this is true, we may with justice ask, what profession, science, or art in any age, country, or stage of civilization has ever been free from superstitions and impostors? And, while condemning follies in the Indian, we must, I think, recognize the fact that all culture, civilization, and religion in the most enlightened nations are the result of forced training; or, in other words, conditions not natural to man. Reason and knowledge are therefore neither stable in quality nor uniform in quantity in a nation. The people that desires to maintain them at a high standard of excellence must be on a constant strain. To pause in the support of them will be to retrograde. And it is quite as important to recognize the fact that errors and false principles are also the result of education, or a sentiment, and dominate judgment and incite to

burying it. There are many other charms for removing warts. The wearing of a thread of gray woolen yarn around the leg to prevent cramps. To prevent nightmare, by the placing of a pair of scissors, or some cutting instrument, under the pillow. To cure toothache, pick the tooth with a nail taken from a decayed coffin. To cure or prevent whooping-cough, the wearing of a leather string around a child's throat. The rubbing of a "mad-stone" on the wound for the cure of a bite of a mad dog. Bags of sulphur, camphor, assafetida, etc., worn to prevent contracting contagious disease. Nailing of a horseshoe over the door of houses and stables for good luck. It would be an easy matter to greatly extend this list.

action just as strongly as does the truth. There are more martyrs to false theories than to true principles. What is Truth? seems as difficult to answer now, as when the Roman Governor of Judea propounded this momentous question. Toleration, or rather mental liberty and emancipation from dogmatism, is a rare and heavenly virtue born of the Saviour, but has neither apostles nor disciples. It has no saints, no shrines, and few true worshippers.

That Indians are controlled in their conduct through life by a different philosophy from that which governs educated Christians is very evident. It is particularly noticeable in their treatment of the sick, but less so in their surgical practices. Most of their remedies are administered or accompanied by some incantation and ceremonial jugglery. However, from the testimony of reliable persons who have lived for years among them, as well as from written history, they have always had practitioners, taught by experience how to administer medicines with more or less judgment. With some tribes the physician is held to a responsibility that is equivalent to an obligation or contract to cure, not merely to treat his patient according to the best of his ability. This is to be inferred from the fact that some of them held the physician accountable for the recovery of those intrusted to his care; and when death instead of recovery took place, the disappointed friends had, and occasionally exercised, the right to take the life of the doctor. This cruel treatment is no doubt in part based on the prevalent belief that the physician has the power to inflict disease as well as to cure it. But we know enough of human

nature to see that this is but an exaggeration of a natural feeling, excited by disappointment, which culture and civilization have subdued or controlled.

Henry, in his *Travels in Canada*, gives an account of an Indian physician he saw put to death by the infuriated friends of a deceased patient. Many other authors corroborate the existence of this custom.* Father Hennepin says that in case of failure on the part of the Indian physicians, jugglers, and priests, to cure a patient, it is ten to one that the parents or friends of the deceased will kill the physician on the spot without any formality. Alexander Ross, in his *Adventures on the Oregon River*, p. 304, records what he observed of the treatment of medical men when they fail to cure, by the Flathead Indians, and says: "On whomsoever (physician) their imagination fixes, be he far or near, he is secretly hunted out, waylaid, and put to death; and this is generally the fate of all of them." In the published account of Captain Wilkes's exploring expedition (vol. iv., pp. 368-9) it is stated that the Indians of the Willamette Valley frequently kill their medical men when they fail to cure. They even apply this rule to white physicians or others who take the risk of prescribing for the sick. Captain Wilkes records the instance of the killing of Mr. Black, who was not a physician, but who had

* Father Charlevoix's *Travels in Canada*, p. 271; Alex. Henry's *Travels in Canada*, p. 124; Rev. Samuel Parker's *Journal of a Tour beyond the Rocky Mountains*, p. 245; C. C. Jones's *Antiquities of the Southern Indians*, p. 33; Hunter's *Narrative*, p. 352; Hennepin's *Continuation of Discoveries in America*, p. 59; Wilkes's *Exploring Expedition*, vol. iv., p. 368.

lived for many years among these Indians, and of whom they were very fond. Out of sympathy for one who was suffering, he prescribed medicine. The patient not recovering, the friends of the Indian shot Mr. Black. This gentleman had published some valuable accounts of the geography and products of this region, and was a great loss to the early traders and settlers in Oregon. General Alvord, of the United States Army, observed this barbarous conduct among the Indians of Oregon.* Father Charlevoix, p. 188, says: "The Indian sorcerer is safe nowhere, and condemned to the punishment of prisoners of war. Those who are least culpable are knocked on the head before they are burned." The physician is usually paid his fee or receives a present as soon as he enters the cabin. In some cases stipulation is made for payment in advance (this, however, is not the general custom), and occasionally fees are returned should the patient die. The Indian physician receives almost any article proffered, as arms, skins, robes, moccasin ornaments, or food, a dog, a horse, etc.

It is a notable fact, and particularly in the East, that the physician among early races, whose origin is referable to Semitic stock, is frequently the head of the family or tribe. Indeed all rank and tribal authority in races having this descent seem to be patterned after the patriarchal form, where the head of the family

* General Alvord has given an interesting account of this cruel practice among the Oregon Indians in a paper which he read, January 20, 1877, before the Literary Society in Washington, and which I trust will soon be published. He contributed similar facts to Mr. Schoolcraft, which are published in the fifth volume of his work, p. 652. Mr. Schoolcraft, on p. 271, refers to this practice among various tribes.

or tribe constitutes himself the ruler, physician, and priest. The reverse of this usage or system obtains among the North American Indians and most uncivilized races, not of Semitic origin. The chief among the Indians is chosen for his recognized bravery or other personal qualifications. To some extent age is respected, and particularly when associated with rank; but there is no hereditary descent of office or position. While the priestly function may be associated with that of the physician, the chief or king rarely, or perhaps never, combines either with his tribal or rather martial office. The professions seem to be open to the fullest competition, even females aspiring to the honors. Captain Wilkes (vol. iv., p. 399, of his Expedition) describes the practice of a female physician among the Walla Walla Indians of Oregon.

To appreciate the Indian physician at his real worth he must be judged of from a standard of proficiency that will take into account his actual knowledge, environments, and the wants of, as well as the degree of intelligence possessed by, the tribe to which he belongs, and not measured by the exactions which civilization and Christianity have established for the nineteenth century. As it is my desire to discuss Indian medicine as it existed when this continent was discovered, or at least before its system was modified by contact with the whites, it is but proper, in comparing it with the best practice of to-day, that we should remember the progress the science of medicine has everywhere made within this period. I will not take up your time with an account of their extreme ignorance of physiology and their absurd and foolish methods

of cure through magic. I seek rather to present them fairly, if not at their best. With this explanation of the standard by which to estimate the skill of the Indian physician in the treatment of the ills common to their condition and modes of life, it presents, in the main, no mean degree of success. It is nevertheless true that their strange and ridiculous maneuvers and jugglery offend the common sense of the present day, and were doubtless often carried to an extent that lost sight of the essential points in the treatment of the sick.*

The theory of disease held by the Indian was so entirely different from that of the educated physician of the present age, that it is proper his practice should be viewed in connection with it. It was believed that disease was produced by evil spirits, and that the medicine-men had power to hold close communion with the unseen, and thus discover the secret causes of all disorders and by incantation insure their expulsion. Notwithstanding this absurd notion, they were not entirely ignorant of the functions of some of the

*Catlin says that all tribes have their physicians, who are also medicine or mystery men. "These professional men are worthies of the highest order in all tribes. They are regularly called and paid as physicians to prescribe for their sick, and many of them acquire great skill in the medical world and gain much celebrity in the nation. Their first prescriptions are roots and herbs, of which they have a great variety of species, and where these have all failed, the last resort is to 'medicine' or mystery." The fact is mentioned by many authors that the physician is always dressed with elaborate care. Drawings of the physicians' costumes may be seen in Catlin's *History of North American Indians*, vol. i., p. 40. The doctor's dress is graphically described in *Lawson's History of North Carolina*, p. 37, and in *Loskiel's Mission of the United Brethren*, p. 111.

more important organs of the human body.* These they learned by the analogy the organs in man bore to those of the animals which they were accustomed to kill and cut up for food. They were cognizant of the fact that the lungs are the organs of respiration, that the heart is necessary for the circulation of the blood, and that a suppression of the action of the kidneys would be fatal to life.† The more urgent demand for the skill of the physician would be conditions growing out of accidents, more or less severe, such as fracture, luxations, and incised wounds. In the treatment of these the red man's physician occasionally displays much common sense, mingled with mystery. Every warrior is expected to have some knowledge of the healing properties of plants and roots, in order that he may intelligently treat such diseases and accidents as are likely to occur when on the war-path or on a hunting expedition. Their necessities taught them efficient modes of transporting those who became disabled on the march. Dr. Pitcher describes the litters they constructed, of two poles

* Dr. Zina Pitcher, in Schoolcraft's *History of the Indians of the United States*, p. 505.

† Dr. Brickell, a physician who lived for many years among the Indians of North Carolina, says: "I never observed any of them to practice anatomy; neither do I believe they have any knowledge therein, unless they make a study of the skeletons of their kings and great men's bones." (Brickell's *History of North Carolina*, p. 339.)

Schoolcraft, vol. v., p. 501, says the Indians have "distinct names for the heart, lungs, liver, gall, spleen, windpipe, and other functional parts." In the same volume Dr. Pitcher relates an anecdote to show how the experienced Indian hunter, from an examination of the ovaries of the beaver, will predict from the scars found the number of young she has had, and therefore the number he may expect to trap.

lashed to cross-pieces by means of bark and then woven or filled in with strips of bark to form a web or mat upon which the wounded are placed and carried by four persons. A method somewhat similar for carrying the disabled is mentioned by Father Jacob Baegert as resorted to by the Southern California Indians. "They placed," he says, "their sick or wounded on a rude litter made of crooked pieces of wood, which would constitute a rack to any but Indian bones;" but adds, "the carriers were in the habit of running with their charge."* An incident recorded by Alexander Henry evinces the ability of the hunter to arrest hemorrhage from an artery by compression. An Indian on his wintering ground trapping beaver, when at a distance from his lodge slipped on the ice and, falling on his hatchet, nearly severed his hand at the wrist. Taking off his shirt, he tore it into strips and bound it tightly around the arm above the wound, thus stopping the flow of blood, and walked three miles to his cabin. The hand was then detached, thus completing the amputation, and the stump dressed, which healed rapidly.†

When necessary to cleanse deep wounds Indian physicians made use of expedients, some of which are worthy of mention. For instance, they constructed a

* Smithsonian Report, 1874, p. 387. The same or nearly similar methods are mentioned by Schoolcraft, vol. 1, p. 254, and by other authors. See also Surgeon G. A. Otis's report on the removal or the transportation of sick and wounded by pack-animals to the Surgeon-General, U. S. A., 1877.

† Travels and Adventures in Canada and the Indian Territory, by Alex. Henry, pp. 122, 123.

syringe made of a bladder with a quill inserted in it for a nozzle, through which they forced water or any decoction they wished to use for this purpose.* Suction both by the mouth and through tubes is resorted to for removing foreign bodies from wounds, as they wished to avoid enlarging them, and looked upon a practice that did so with disfavor. Tubes made of stone and other substances seem to have been much used, and are frequently found in Indian graves. These tubes also served as a sort of cupping instrument and for blowing through to cool inflamed parts, to remove foreign bodies, and for conveying water forced from the mouth in washing out cavities and wounds not readily reached. Their surgeons took special care to remove all foreign bodies from wounds as soon after an accident as possible, which they accomplished with care and much dexterity.†

Numerous instances are recorded of their applying dressings of cold water, and also poultices of Indian meal, slippery-elm bark, and a variety of roots, herbs, and other substances. Dr. Pitcher states that they coaptate and hold in position incised or other wounds by means of sutures made of the tendons from the leg of the deer. These they introduced with a needle made of bone. A slender fiber from the center of the tamarack, and also the inner bark of the bass-wood, were used as threads for sewing up wounds. The rule was not to remove the sutures until after the sixth day. And

* Charlevoix, Pitcher, and others.

† Loskiel's *Mission of the United Brethren*, p. 112; Captain Jonathan Carver, p. 257; and Father Charlevoix, p. 268.

while they were averse to enlarging wounds, nevertheless they were aware of the advantage of having them heal from the bottom. To insure this, they inserted tents of slippery-elm bark in deep wounds to keep them open.* According to Brickell, from the manner in which the Indians of North Carolina treated the prisoners taken in war, and whom they desired to keep as slaves, it is evident they knew that in amputation it was important to preserve a flap of skin to cover the end of the bone. The method they adopted for preventing the slave from running away was to maim him by cutting off one-half of each foot. "They flayed the skin from the setting in of the toes to the middle of the foot, cut off one-half of his feet, wrapping the skin over the wounds and then healing them."† Lawson, in his *History of North Carolina*, testifies to the same practice, and to their skill in arresting hemorrhage. Alexander Henry, before referred to, records the case of a man wounded by an axe penetrating the lung, which was followed by profuse hemorrhage. Air escaped from the lung through the opening, yet this was so successfully treated the Indian was alive twenty years afterward.‡

Loskiel says a hunter accidentally dislocated his

* The practice of introducing slippery-elm tents into deep wounds is described by Pitcher. Hunter, already referred to, alludes to the same practice, and to the use of the pulverized bark in poultices, p. 398.

† Dr. John Brickell, in his *Natural History of North Carolina*, published in Dublin, 1737, pp. 321 and 399; John Lawson, in his *History of North Carolina*, pp. 322, 323, records the same fact and in nearly identical language, so that there is not much doubt but the flap operation in amputation was practiced as early as 1700 in North Carolina.

‡ Henry's *Travels*, already cited, pp. 124, 125.

thigh when alone in the woods, and replaced it by fastening one end of a strap to the nearest tree and the other to his dislocated limb, and then forcing himself away from the tree by the uninjured leg in such a manner as to make traction and replace the dislocated joint.

The Indian physicians were aware of the assistance gained by securing muscular relaxation in replacing dislocated limbs.* Fractures, according to the statements of Dr. Zina Pitcher, Father Charlevoix, and Loskiel, were treated by placing the injured limb in splints made of birch or other bark, carefully fitted to the part, and fastened by bark bandages, so as to keep the bones in their position. Ross Cox, in his *Adventures on the Colorado River*, page 125, says the Flathead Indians treat fractures by "bandages and pieces of wood like staves placed longitudinally around the part, to which they are secured by leather thongs." I find no mention of any means used by them for extension or counter-extension in fractures. Of course, shortening of limbs must have occurred in certain cases for want of such treatment.

The testimony is general that but few deformed or crippled Indians were to be seen. These Indians cure rheumatism by cold baths, which they use in conjunction with the steam-bath, often breaking the ice to plunge into the cold water. Bancroft states that the Haidah Indians of the Pacific Coast, to arrest hemorrhages from bites or wounds, use eagle-down to

* Loskiel, p. 112. Hunter, p. 397, says they were acquainted with the advantage of relaxing the muscles in dislocations, and gave medicine to produce nausea for this purpose.

thrust into the wound or bind upon it. Pitcher states they used the ordinary puff-ball for arresting hemorrhage, and in epistaxis plugged the nostrils with it and with pulverized charcoal. Smith, in his History of Virginia, speaks of the inveterate character of ulcers, and Dr. Zina Pitcher remarks that those of an indolent character were sometimes treated with a salve made of fresh ashes and tallow or powdered calamus, and adds that the actual cautery was at times used in these cases. The Indians treated boils and phlegmonous ulceration by scarification and lancing, and by poultices of Indian meal, slippery-elm bark, wild onions, etc. The Indians of Cape Flattery (see Smithsonian Report for 1870, p. 79) used a poultice of oysters and fresh fish. They made use of the actual cautery and a moxa made into a cone from the dried inner bark of the white pine. The part of the body selected for the moxa is prepared by moistening, the cone is then placed in position and ignited, which burning leaves a deep sore. This is kept open by removing the scab until relief is obtained. It is a favorite practice among these Indians to use external cautery for all internal diseases, on the theory that it serves the double purpose of blistering and bleeding.

Beverly (History of Virginia, second edition, 1722, pages 186, 187), says that when pain is seated in a limb or joint the general cure is by burning. Their method of doing this he informs us "is by little sticks of lighted wood, the coal of which will burn like a hot iron; the sharp point of this they run into the flesh, and having made a sore keep it running till the humor be drawn off." They also use the punk or touchwood

made into canes and used as a moxa, burning it over the seat of pain, so as to form a sore. Charlevoix remarks that they possessed several cauterants, prominent among which was rotten wood, probably punk. Pitcher says that for hernia they used bandages with pads, but when strangulation ensued they were unable to afford relief.

By some historians the toothache is stated to have been comparatively common among the Indians. Loskiel states that they used in this affection an application of the bark of the white walnut to the cheek, and when relief was not obtained by such remedies, Brickell tells us the tooth was punched out, by placing a piece of cane against it, which was then struck in such a manner as to drive the tooth out, which is done without injury to the bone. The same author speaks of the success of the Indian physicians in their treatment of burns. Similar testimony is given by Loskiel, who says they made applications of a decoction of beech-leaves in such cases. A long list of the medicines used by the Indians may be seen in Hunter's Narrative, in Schoolcraft, and in a recent report by Major Powell. Loskiel, in referring to long confinements which produce bed-sores, states that they adopt the following method for the comfort and relief of the patient. They make a soft bed of straw, and under the part where the buttock rests they make an aperture to relieve pressure and through which the natural evacuations may take place.

Bleeding was a common and popular practice among nearly all tribes. Henry, in his travels, says it was held in such general favor that even those in good

health resorted to it, and states that on one occasion he bled a dozen women as they were seated on a fallen tree, commencing with the first and opening a vein, then the second, and so on, three or four bleeding at one time. This operation is performed with a sharp flint, in the arm, and sometimes in the foot. Next to that of bleeding, cupping was a popular remedy, and performed in the following manner: Over the seat of pain or part to be cupped they would scarify, and then place over this a gourd cut off near the end, which served as a cup. They half-filled this with combustible matter, which, burning rapidly, exhausted the air, forming a vacuum in the gourd, which, when placed on the part, made an admirable cup. Another mode of cupping, related by J. C. Beltrami, Dr. Pitcher, and others, was as follows: After lacerating the skin with a sharpened bone or flint, the large end of a buffalo-horn was applied over the incisions. Exhaustion in this case was produced with the mouth applied to the small end of the horn, which was perforated. The blood by this method is discharged through the mouth of the operator. Carver states that they sharpened flint-flakes by grinding or whetting them on a stone, so as to be quite efficient as a cutting instrument for scarification. Brickell states that for scarifying the North Carolina Indians used the teeth of the rattle-snake from which the poison had been extracted. "Scarification was frequently resorted to," says Father Hennepin, "for the relief of pain and swelling, even where cupping was not practiced."

According to Father Charlevoix, Henry, and others, the gout, stone, and apoplexy are unknown among

the Indians, and to this list Heckewelder adds rickets and scrofula; and Dr. Brickell says that dropsy, diabetes, gout, stone, consumption, asthma, palsy, struma, and a host of European diseases, too numerous to mention, were completely unknown to the Indians of North Carolina. Hunter says that the diseases most common are rheumatism, asthma, fevers, pleurisy, and bowel-complaint. Smith, in his History of Virginia, records the fact that dropsy was sometimes prevalent among the Indians of that section.

Jones, in his Antiquities of the Southern Indians, p. 33, states that the treatment of diseases by them did not depend so much upon the giving of medicines as it did upon strict attention to regimen and abstinence. Father Charlevoix bears testimony that the doctor never refused the patient anything that he desired to eat, under the belief that "his desires in this state are the orders of the genius that presides over his preservation." Loskiel says that the sick were given as diet a thick soup of pounded corn-meal. Carver says the physicians refuse their patients no sort of food they desire, and are never alarmed for their recovery unless all appetite be lost. Lawson in his History of North Carolina, already referred to, at p. 39, says: "I have seen such admirable cures performed by these savages, which would puzzle a great many graduate practitioners to trace their steps in healing, with the same expedition, ease, and success; using no racking instruments in their surgery, nor nice rule of diet and physic, to verify the saying, *qui medice vivit, misere vivit*. In wounds which penetrate deep and seem mortal, they order a spare diet with drinking

fountain water ; if they perceive a white matter or pus to rise, they let the patient move at large, and presently cure him."

C. C. Jones says the physicians occasionally required their patients to lie upon their stomachs with their heads over pans in which medicinal plants were being boiled, so that they might inhale the medical properties. The sweat-bath was an institution in every village or camp, and used not only in health, but for nearly every ill from which they suffered. Charlevoix, Brickell, Furman, and Pitcher give an account of a mode of administering an earth sweat-bath, which was to open a dry sand bank, or the earth where wood had been burned and before the ground had become cold, sufficiently deep for a man to lie down in, wrapped in a blanket. The patient is then covered over with the earth excepting his head, and left for hours.

Carver, Charlevoix, and Pitcher mention the frequency of pleurisy among the Indians, which was treated by poultices and other external applications, some of which were of a rubefacient character. They also bled in these diseases. Consumption is mentioned by the same authors. Heckewelder claims that consumption had become more frequent among the Indians after the introduction of alcoholic liquors. Loskiel tells us that in consumption the flesh of the rattlesnake is made into broth and administered with good results. De Forest, in his History of the Indians of Connecticut, mentions the existence of quinsy, which was treated by sweat-baths. As might be expected, rheumatism, both in the acute and chronic form, was a common disease among the Indians, old and young.

It was treated, says Loskiel, both by scarification, cupping, anointing with oil, rubefacients, and also by poultices of a plant called jalap, the bark of the white walnut, etc. Brickell, in his History of North Carolina, p. 398, states: "They have a kind of rheumatism which generally afflicts their legs with grievous pains and violent heats; while thus tortured, they employ the young people continually to pour cold water upon the part aggrieved until such time as the pains are abated and they become perfectly easy, using no other method for this kind of disorder." Thus it will be seen that the American Indians early discovered the advantage of reducing high temperature by the application of cold water.

Typhus fever was probably unknown to them, but the malarial and bilious fevers were common throughout the tide-water region and southern low lands. These were treated by decoctions of herbs and cold lotions, but the names of the ingredients have not been preserved. Father Hennepin, in speaking of the fevers, says that to cure the tertian or quartan fevers and agues they used a "decoction of the bark of a tree." Many tribes of Indians in the beginning of fevers used emetics, which they prepared from a variety of sources, as "the spurge, thorough-wort, etc." As purgatives they used the euphorbium and horse-chestnut, white walnut, etc. Much reliance in breaking a fever was placed on the hot and cold baths combined, a powerful reaction being produced by the transition from a profuse sweat to a plunge or douche of cold water. The want of knowledge of the true nature of exanthematous diseases, which were treated by the

same methods employed in other complaints, no doubt occasioned many deaths.

Dysentery and diarrhoea are mentioned by a number of authors as existing among the northern and western tribes. Father Charlevoix, Loskiel, and Dr. Pitcher state that these diseases were both treated by a decoction of the root of the low blackberry, the juice from the cedar-tree, etc.

Paralysis is mentioned by Brickell, Lawson, Pitcher, Carver, and Charlevoix, who allude to it as a rare disease. The latter mentions the fact of an Indian suffering from epilepsy being cured by a bolus administered by an Indian woman, but has not informed us of what the bolus was composed. Lewis and Clarke, in their journal of an expedition to the Pacific, mention the frequency of sore eyes among the Indian tribes of the plains. Brickell, in alluding to skin-diseases, states that they are readily cured by plants collected by the Indians, and that scald-head was invariably cured by the application of an oil made from acorns.

The testimony is almost universal that Indian women suffered but slightly in childbirth. The little aid rendered them was generally by females. Lawson, however, in his history of North Carolina, states that no disadvantage was suffered for want of "midwives, for these, as well as doctors, are well skilled in the practice and render labor less difficult." His language gives the impression that males as well as females rendered service in these cases.*

A singular proceeding, in a difficult and protracted labor, calculated to bring on partial suffocation in the

* Schoolcraft, vol. 1, p. 225 ; 2, p. 65.

parturient woman, is related by Carver, p. 260. He describes a case where the surgeon, midwife, and friends despaired of the life of the patient, but who was promptly relieved by an Indian woman, who "took a handkerchief and bound it tightly over the nose and mouth of the parturient woman. This immediately brought on a suffocation, and from the struggles that consequently ensued she was in a few seconds delivered." The insensibility and relaxation produced by this treatment may have relaxed the muscles, and in some respects resemble a state of anæsthesia.

The question of the origin of syphilis is one that, since shortly after the discovery of America, has caused much discussion in the medical profession.*

* The writer who first asserted the American origin of syphilis was Leonhard Schmauss, a German physician, who wrote in 1518, twenty-five years after the disease appeared or was recognized as existing in Italy. He was followed by Ulrich Van Hulten, Oviedo, and others, who reiterated the same view, and in fifty years the statement was accepted as a fact. These authors say that the sailors attached to the fleet of Columbus brought it on his first or second return home in 1493 and 1496. Dr. Good says this is an error, for, on his reaching Seville, in the ensuing month of April, in order to join the Spanish army, syphilis then existed in Auvergne, Lombardy, and various parts of Italy, and in the course of the summer was in Saxony, Brandenburg, Brunswick, Mecklenburg, and especially Strasburg and at Cracow in Poland. Fracastorio, a physician of high repute for his skill in the treatment of this disease, and who resided at the spot where it was thought to have appeared in Spain, asserts that previous to the date here assigned to the disease it existed in Asia and Africa, as well as in some parts of Europe. Fulgori and others state that it was in upper Italy in 1492 and 1493; and at Massa, Cataneo, Pinetor, Burchardi, Capreoli, and at Rome in 1494. Therefore Oviedo's statement that it was carried to Italy by Gonzalvo is an error, as that general only arrived at Calabria May, 1495. Oviedo, although a writer of note, was charged and convicted of falsehoods, contradictions, and

To assume, as many authors have done, that this disease was unknown until after the discovery of

inaccuracies by contemporary writers, such as A. Herrera, De la Casa, Ferdinando Columbus, and others. For this reason, and because he was not a physician, his testimony should be received with caution. That syphilis did not exist in the New World till after the third voyage of Columbus, 1498, is pretty well established, and that it was carried there from the sea-port cities of Spain is probable. Indeed, Swediaur has made these assertions. (See Copeland, vol. 3, p. 1462.) Where and at what time it first appeared is uncertain, but that it did spread, according to all testimony, with great rapidity to all the cities of Europe shortly after the discovery of America, is certain. It was seen as early as 1490 by Fracastorio, and by Fulgiori in 1492. It is mentioned in the Mansfield Chronicle, the Leising Chronicle, the Leipsic Annals, and the Zweifalt Annals, as being prevalent in Germany in the summer of 1493. It was common in Auvergne in 1493, in Paris in 1494, and in Augsburg in 1495, in Memmingen, at Nurnberg, and in Edinburgh in 1496, and spread through Bohemia in 1499. (Copeland, vol. 3, p. 1464, says that syphilis is identical with the African "Yaws," which is indigenous among the negro races, thence spreading to the Moors and Jews in North Africa, and thence conveyed into Spain and Portugal ages before its spreading into France and Italy.)

It has been suggested, and with much plausibility, that although the period of the spread of syphilis was associated with the discovery of America, yet it should be more strictly connected with the period of expulsion of the Moors from Spain, of whom, although the bulk retired to Africa, some found refuge in Italy and resided outside the Appian gate at Rome.

Hippocrates speaks of a disease in which there were ulcers on the genitals, general pustules, and loss of the hair, and Celsus speaks of the hard and soft chancre. Chinese literature on this point bears testimony that syphilis existed there and was treated with mercury before the Christian era. Biblical scholars discover in the most ancient of books references to diseases of the genitals and of secondary effects, which, though of course difficult to prove, strongly resemble syphilis. Accounts of some of the symptoms of syphilis are given by Gulielmus de Saliceto as early as 1270; Valescus de Taranta in 1418; Bernardus

America, is ignoring history and prejudices the question. Abundant evidence is to be found throughout the old chronicles and the early general and professional literature of the existence of a disease which it is probable a more exact and enlightened pathology had recognized as syphilis ages before Columbus was born. Indeed, the earliest writers on this disease did not attribute its origin to America. That the sailors and soldiers who made early voyages to the New World lived dissolute lives and were perhaps treated for this disease and died in European hospitals is very probable. But the evidence is entirely wanting that it either existed among the native Indians of North America or in Mexico until after it was introduced from the Old World.*

You are aware of the character of the discussions that have taken place on this subject for nearly four centuries without reaching a conclusion. I shall therefore not attempt to recapitulate those arguments *pro* or *con*, but will present a few facts recently brought to

de Gordon, who died in 1305; and Joannes ab Arderne in 1360. Stow's Survey of London, vol. 2, page 7, contains a copy of the rules and regulations established by Parliament, in the eighth year of Henry II, 338 years before the voyage of Columbus, in regard to the licensed stews of Southwark, in which is found the following: "No stewholder shall keep any woman who hath the perilous infirmity of burning."

* Those interested in the question of the early history of syphilis will find an admirable chronological list of the earliest publications on this subject in John Astruc's Treatise of Venereal Diseases, 4to. London, 1756. The question of the American origin of syphilis has been well discussed by Clavigero in his third volume of the history of Mexico, Philadelphia edition of 1817.

light and allude to some of the recorded observations of the earliest travelers in America on this subject.

Dr. Joseph Jones, of New Orleans, has endeavored to ascertain, by a microscopical and chemical examination of the bones of the prehistoric races found in the stone mounds of Tennessee and Kentucky, what were the probabilities of syphilis having existed among them. He refers to the fact that John Lawson, the historian of North Carolina, was the first American author to assert that syphilis existed among the Indians of North America prior to the discovery by Columbus.*

* As Lawson's History of North Carolina is not available to many, I will here give his statement in full on this subject: "At these cabins came to visit us the King of the Santee Nation. He brought with him their chief doctor or physician, who was warmly and neatly clad with a matchcoat, made of turkey-feathers, which makes a pretty show, seeming as if it was a garment of the deepest silk shag. This doctor had the misfortune to lose his nose by the pox, which disease the Indians often get by the English traders that use amongst them; not but the natives of America have for many ages (by their own confession) been afflicted with a distemper much like the lues venera, which hath all the symptoms of the pox, being different in this only, for I never could learn that this country distemper, or yawes, is begun or continued with gonorrhoea, yet is attended with nocturnal pains in the limbs, and commonly makes such a progress as to vent part of the matter by bothes, and several ulcers in the body and other parts, oftentimes death ensuing."

"I have known mercurial unguents and remedies work a cure, following the same methods as in the pox. Several white people, but chiefly the Criolos, losing their palates and noses by this devouring vulture. It is epidemical, visiting these parts of America, which is often occasioned through the immoderate drinking of rum, by those that commonly drink water at other times. Cold nights' lodging and bad open houses, and more chiefly, by often wetting the feet, and eating such quantities of pork as they do, which is a gross food, and a

Dr. Brickell, who also resided in North Carolina, and was a contemporary writer with Lawson, in alluding to the existence of the venereal disease among some of the Indian tribes, considers it a by no means settled fact that the disease existed in America prior to the Europeans coming, but states that the Indians were able to cure syphilis by the use of berries, that produced salivation as though mercury had been used.

C. C. Jones says that the Jaouanas were successful in the cure of venereal disease; and Charlevoix, in speaking of it, states that the Indians used a powder of three simples that was an effectual cure of the most inveterate "French disease." Notwithstand-

great propagator of such juices as it often meets withal in human bodies, once tainted with this malady, which may differently (in some respects) act its tragedy, the chances being occasioned by the difference of climates and bodies in Europe. We being well enough assured that the pox had its first rise (known to us) in this New World, it being caught of the Indian women by the Spanish soldiers, who followed Columbus in one of his expeditions to America, who, after their arrival in Old Spain, were hastened to the relief of Naples, at that time besieged by the French. Provisions growing scarce, the useless people were turned out of the city, to lessen the mouths. Amongst these the courtezans were one part, who had frequently embraced the Spaniards, being well fraught with riches by their new discovery. The leager ladies had no sooner lost their Spanish *Dons*, but found themselves entertained by the French, whose camp they traded in, giving the *Monsieurs* as large a share of the pocky spoils within their own lines as the Spaniards had, who took the pains to bring it in their native breeches as far as from America. The large supply of swine's flesh which that army was chiefly victualed withal made it rage. The siege was raised. The French and Spaniards retreating to Flanders, which was a parade of all nations; by which means this filthy distemper crowded itself into most nations of the known world." (Lawson's History of North Carolina, pp. 37, 38, 39; Raleigh edition, 1860.)

ing the scientific method adopted and the seemingly conclusive evidence discovered by Dr. Joseph Jones that syphilis existed among the races that erected stone graves, he, in a review of the whole question, thinks the proofs he has been enabled to present on the subject favor the theory of its existence among the people who built the stone graves.* Should these results be confirmed by other experimentors the ques-

* Dr. Joseph Jones, of New Orleans, has found in the skeletons of the stone-grave race of Tennessee and Kentucky what he regards as unmistakable evidence of syphilis. He says: "The bones in many instances are thoroughly diseased, enlarged, and thickened, with the medullary cavity completely obliterated by the inflammatory action, and the surface eroded; these erosions resemble those of syphilis, attended with the ulceration and destruction of the soft parts during life. The disease was not confined to the tibial shaft; the bones of the cranium, the fibula, ulna, radius, clavicle, sternum, and bones of the face exhibit unmistakable evidence of periostitis, osteitis, endostitis, caries, necrosis, and exostosis. The medullary membrane was involved to an equal degree with the periosteum. Where thin sections of these bones were examined with the naked eye and by the use of magnifying glasses, portions were found resembling cancellous tissue from enlargement and erosions of the Haversian canals and the increase in number and size of the lacunæ, whilst other portions presented the hardened condition known as sclerosis. I observed also various osseous ulcerations which pathologists ascribe to syphilis, rounded ulcers with marked hardening and eburnification of the bone, dependent not only on periosteal deposit, but upon chronic inflammation of the compact tissue itself. That these were not due to mechanical injury, or exposure to cold, is evidenced by the fact that they were almost similar on both sides of the body. Thus, when one tibia was diseased the other was similarly affected, both as to position and nature of the disease. This was true of all the bones throughout, and shows that the poison was introduced through the medium of the blood and was equally distributed to all parts of the body." (*Explorations of the Aboriginal Remains of Tennessee*, p. 66.)

tion of identity of race as well as the age of the graves and their occupants, will require verification before the question can be considered settled.

Loskiel, in speaking of this disease among the Indians, records the fact that when the Indians joined the French against the English in 1676, this disease was then first introduced among them, and for a time they were very unsuccessful in treating it. But observing the methods pursued by the regular surgeons of the army, they gradually acquired knowledge so as to treat it with success. They alleged, said this author, that the disease was introduced by the white man, and had never been known among the Indians before. H. H. Bancroft states that among the Malma people the disease in some of its forms was not unknown to the aboriginals of America. Captain Jonathan Carver says he was aware the theory was held in Europe that syphilis originated in America, but says he could not find the least traces of it among the Nau-dowessies, with whom he resided so long. He further states that he had satisfied himself this disease was unknown among the more western nations, and thinks that it did not have its origin in America, but says the Indian nations who had relations with the Europeans were afflicted with it. Pitcher, a competent medical authority, in speaking of this disease among the Indians, states that they have no specific for its cure, but that the antagonistic properties of *Lobelia syphilitica* makes it the remedy most relied upon by them, though secondary effects are frequently observable after its use. The Indians of Utah, Colorado, New Mexico, and Arizona use a decoction of different

plants and also the lobelia for the cure of syphilis. Carver tells us that the Indians made a decoction from the bark of the roots of the prickly ash for gonorrhœa, which in a short time effected a radical cure.*

Want of time prevents my alluding to other diseases that have seriously afflicted the Indians. One word, however, on small-pox, a malady that perhaps has been the most destructive with which they have been afflicted. Undoubtedly it was brought by the early explorers. The Indian treatment of this disease is particularly injudicious, their sweat and plunge bath being equally obnoxious and leading to fatal consequences. It is justly held that their ignorance of a disease and want of success in treatment argues its recent introduction.

Humboldt, in his political essay on the History of New Spain, gave careful attention to the question of the diseases that probably diminished the population and perhaps destroyed the Toltec race in Mexico, and more than suggests, almost proves, that they were

* The professional literature on this subject is very large and familiar. The following historical works can be consulted to advantage in a study of this question: Clavigero's History of Mexico, Vol. III, pp. 415 to 435; H. H. Bancroft, *Uncivilized Races of America*, Vol. II, p. 594; Jonathan Carver, p. 259; John Lawson's History of North Carolina, pp. 36, 39, etc.; Joseph Jones, *Exploration of Aboriginal Remains of Tennessee*, pp. 66, etc.; G. H. Loskiel, *Mission of United Brethren Among the Indians of North America*, pp. 108, 112; Zina Pitcher in Schoolcraft's History of the Indians, Vol. IV, p. 505; John Brickell, M. D., *Natural History of North Carolina*, pp. 397, etc.; William Robertson's History of America, Vol. II, pp. 85, 397; Dr. Benjamin Rush, *Natural History of Medicine among the Indians*, C. C. Jones, *Antiquities of Southern Indians*, p. 33; John D. Hunter, *Manners and Customs of Indians*.

related to yellow fever. Prior to the white man's successful settlements in America, the Indians had, it is believed, greatly diminished in number along the Atlantic coast and in the Southern and Gulf States.

I have run through much of the literature bearing upon the history of the Indians, as well as travels and explorations of our country, and made many extracts and notes on the state of medicine among them in the preparation of this address, but which I have not been able to use or even refer to. That the labor may not be entirely useless, I append as a note a list of some of the works which may assist those who desire to refer to the medicine and surgery of the North American Indians.*

* When making excerpts and references to authorities consulted on matters relating to medicine and medical practitioners among the North American Indians, I had at first no thought of preserving, much less of publishing, the list. Its compilation is, therefore, an after-thought, that came to me when many of the slips and marks had been removed from the books and thrown into the waste-basket. Many works, too, were consulted of which no formal note was taken or slip placed to indicate the place or fact. This I regret; but those given may serve as a beginning to a Bibliography of Medicine among the American Indians.

Adair, James. History of North American Indians. London, 1775. P. 172 *et seq.*

Alvord, Genl. Benjamin. Treatment of Doctors by Oregon Indians. Mss.

American Antiquarian Society Transactions, p. 283.

Astruc, John. Treatise on Venereal Disease. London, 1754.

Baegert, Father Jacob. Aboriginal Inhabitants of California Peninsula. Smithsonian Report, 1864, pp. 386-7.

Bancroft, H. H. Uncivilized Races Pacific Slope of North America. Vol. I, pp. 86, 172, 418, 779; Vol. II, p. 594; Vol. III, p. 160.

Bartram's Travels in North America, pp. 325, 396, 410, 454.

I am persuaded that those of us who traversed the continent in 1871 have been deeply impressed with

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- Beckett, Wm. Philos. Trans. Vol. XXXVII, p. 365.
 Belknap's Life of Gorges. American Biography. Vol. I, p. 355.
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 Brown, John Mason. Atlantic Monthly, July, 1866.
 Brownell, C. De Wolf. Indian Races of North and South America, pp. 17, 504, 531.
 Carver, Captain Jonathan. Travels in North America, pp. 255 to 260.
 Catlin, George. History of North American Indians. Vol. II, pp. 25, 70, 92.
 Charlevoix, Father. Historical Journal of Travels in America, pp. 91, 225-226, 250, 265-266, 268, 270.
 Clavigero. History of Mexico. Vol. III, pp. 35, 415.
 Coreal François. Voyages aux Indes Occidentales. Vol. I, pp. 39-41.
 Cox, Ross. Adventures on Columbia River, p. 125-126.
 De Forrest, John W. History of the Indians of Connecticut, pp. 20-21.
 Edwards, Bryan. History of the West Indies.
 Flint's Indian Wars, p. 38.
 Folsom, George. Dispatches of Hernandez Cortes, p. 199.
 Forster. Observations made During a Voyage Around the World, p. 492.
 Gibbs, George. Notes on the Tinneh or Chepewyan Indians. Smithsonian Report, 1866, pp. 316, 325.
 Gookin's Historical Collection, p. 8.
 Grieve, James, M. D. History of Kamtschatka and the Kuribski Islands, pp. 92, 141, 217.
 Grossmann, Captain F. E. Pima Indians of Arizona. Smithsonian Report, 1871, p. 407.

its vastness. Nor can we contemplate its grandeur without having presented to the mental vision con-

Hariot, T. A Briefe and True Report of the New-found-land of Virginia, 1590.

Harris, T. M. Tours in the Northwest.

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Hennepin, Father L. A New Discovery of a Vast Country in America. Part II, p. 73, etc.

Henry, Alex. Travels in Canada and Indian Territories, pp. 117, 118, 122-3-4-5, 148.

Humboldt, Alex. von. Political Essay on New Spain. Vol. I, pp. 117, 118; Vol. IV, pp. 135-137.

Hunter, John D. Manners and Customs of Several Indian Tribes, pp. 142, 350, 395, 401.

Indians of Cape Flattery. Smithsonian Report, 1870, pp. 78-80-81.

Jones, C. C. Antiquities of Southern Indians, pp. 28-34, 51-53, 363.

Jones, Joseph, M. D. Aboriginal Remains of Tennessee, pp. 66-7-8-9, 89, 98, 107.

Kane's North American Indians, p. 272.

Lawson, John. History of North Carolina, pp. 26, 36-39, 211, 213, 308, 323, 347, 357, 363, 365.

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Loskiel, G. H. Mission of the United Brethren, pp. 108, 117.

Lubbock, Sir John. Origin of Civilization and Primitive Condition of Man.

Lubbock, Sir John. Prehistoric Times, p. 256.

Massachusetts Hist. Collections. Vol. III, p. 236, etc.

Neill's History of Minnesota, pp. 61, 68.

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vincing evidences of its great age, as well as of the very remote antiquity of man upon it. Who can estimate the centuries that have passed since this globe has been in a condition to support animal life, and especially man? And how inconceivable to us are the millions of human beings that have been

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Robertson, Wm. *History of America*. Vol. II, p. 85.

Ross, Alexander. *Adventures on Oregon or Columbia River*, p. 302.

Rush, Benj. *Medicine among the Indians, Medical Observation and Enquiries*. Vol. I, p. 55.

Schoolcraft, H. R. *History of Indians United States*. Vol. I, p. 250; Vol. II, p. 65; Vol. III, pp. 286, 497; Vol. IV, pp. 211-213; Vol. V, pp. 270, 415-455, 501, 651; Vol. VI, pp. 632, 648.

Schoolcraft, H. R. *Thirty Years among the Indian Tribes*, pp. 311, 312, 675.

Servando, Dr., M. D. *Munroe's Observations on the Different Kinds of Small-pox*, p. 7.

Sloane, Sir Hans. *History of Jamaica and other West India Islands*.

Smith, Capt. John. *Travels, Observations, etc.* Vol. I, pp. 123, 124, 137.

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Webster, Noah. *History of Epidemic and Pestilential Diseases*. Vol. I, pp. 176-7.

White, John. *North American Pioneer*. Vol. I, p. 39.

Wilmer, L. *Life, Travels, and Adventures of Hernando de Soto*. p. 451.

Wilkes's Exploring Expedition. Vol. IV, pp. 47-8, 368-9, 399.

Wood, Rev. J. G. *Uncivilized Races, or Natural History of Man*. Vol. II, pp. 610, 676, 681.

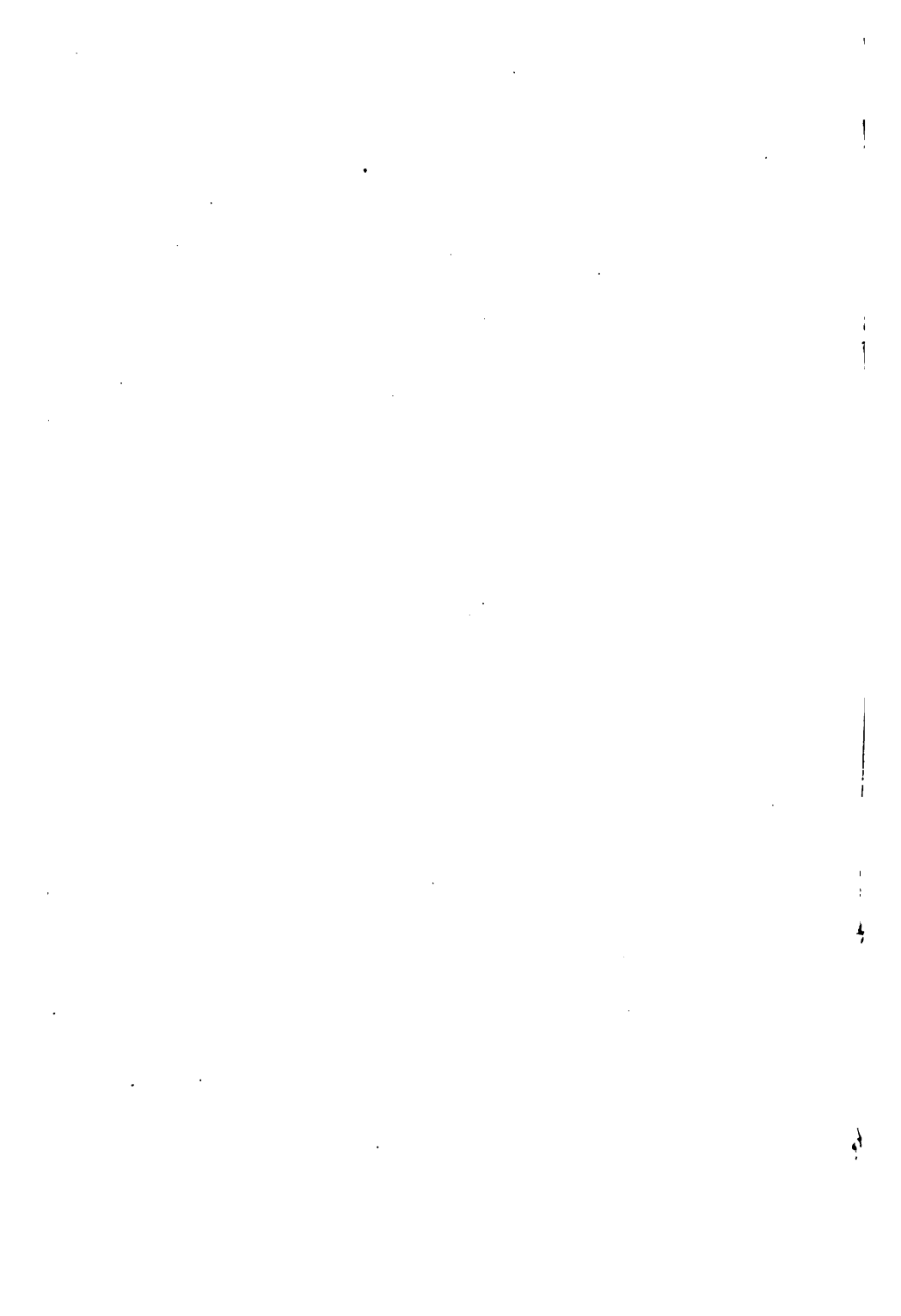
born, lived and died upon it before the discovery of Columbus! All must grant there was a first family. Race may have succeeded race and nation succeeded unto nation, and yet have left few traces of their existence. And although none of these people may have possessed the intellectual development and arts known to those of ancient history, nevertheless they were human, endowed with human hearts and human sympathies, and in a degree susceptible to most of the joys and sorrows, as well as to the bodily ills, inherited by man in all conditions of life.

You may consider the problem of the cosmogony of the universe and the genesis of man according to your several predilections, or as you have studied the question. I have simply attempted in a popular manner to outline the subject as it has presented itself to my mind. As physicians you can speculate as to the possible origin of medicine among savage and uncultured people. You can picture to yourselves a world of but a few thousand years old or one of immense antiquity, and a sparse or a considerable population. That the early races in North America were subject to sickness, accidents, and death, is beyond question. That human sympathy attempted to relieve them by some means I believe all will concede. What degree of skill we should accord to these primitive physicians and surgeons is uncertain. That efforts were actually made by recognized physicians to the end of obtaining relief and cure cannot be doubted. This study remains but deserves to be made. The meager outline of Indian medical practice which I have presented, I am conscious falls far short of doing justice to the race.

In conclusion, gentlemen, though I have many apologies to offer for the manner in which I have treated this subject, I hope I need make but few for the theme of my remarks. The physician, from the duties and requirements of his office, is prone to induction and to the discovery of new facts, to compare them with old theories, and by comparison arrive at correct conclusions. Naturally, the physician is attracted to the master-works of the Creator, of which man is the crowning part. Therefore, an investigation of his early history and habits on this globe, and particularly those of the prehistoric man of our own continent, seemed not inappropriate for this occasion. Many deductions may be drawn from the facts I have endeavored to present. I shall, however, make but one, which is connected with our profession: Everywhere and in every age, among all tribes and peoples, whether the most savage or the most highly civilized, may be traced the presence of the physician. He was ever deemed a necessity, and his standing and influence have everywhere been commensurate with his high and honorable office, which won for him in the Apostolic age the appellation of the "Beloved Physician."

THE

Rocky Mountain Medical Association.



HISTORY AND TRANSACTIONS
OF THE
ROCKY MOUNTAIN MEDICAL ASSOCIATION,

WITH A SYNOPSIS OF THE ADDRESSES OF THE EARLY PRESIDENTS.

This Association was formed at Horticultural Hall, Philadelphia, in May, 1872, the earliest practicable moment after the meeting in California. It is composed of the medical gentlemen who crossed the Rocky Mountains in 1871 to attend the meeting of the American Medical Association in San Francisco, and was organized *in rei perpetuam memoriam*. Dr. Washington L. Atlee, of Philadelphia, was elected President, and Dr. John Morris, of Baltimore, Secretary and Treasurer. The ladies and a few gentlemen who accompanied the party were chosen honorary members. It was then resolved to have an annual reunion at each recurring meeting of the American Medical Association, on which occasion an address should be delivered by the presiding officer.

SECOND MEETING, 1873, IN ST. LOUIS.

The Rocky Mountain Medical Association met in the afternoon at the Masonic Temple, Dr. W. L. Atlee, of Philadelphia, the President, in the chair. Dr. John Morris, Secretary, read the minutes of the last meeting, which were approved. The President then delivered the following interesting address:

DR. ATLEE'S ADDRESS.

Gentlemen and Fellow-Members of the Rocky Mountain Association: Two years ago we traversed the American continent to the golden shores of the Pacific, in order to greet our brethren of the extreme West, and to plant the standard of the American Medical Association, and with it American medicine, beyond the boundaries of the Rocky Mountains. No member has ever regretted that visit, but on the contrary we look back upon it with feelings of extreme delight. Professionally, it may be considered a success. New energy was infused into the medical men on the Pacific slope; order and organization have arisen out of disorder and contention, and a spirit of professional harmony and good-will now pervades the whole profession, which no great mountain boundary can ever more impair. On that occasion the East presented the West with an able presiding officer,* who watched over our deliberations at the Golden Gate; now, our brethren of the West return the compliment by bringing one of their distinguished men† to occupy the same position in this beautiful central city of our great country. These two events are worthy of record, as bringing together the East and the West, the North and the South—as a union of strength in building up the great Temple of American Medical Science.

Growing out of the California meeting of the American Medical Association, another society has been formed, which, though informal and as yet not bound

* Alfred Stillé, M. D., of Philadelphia, Pa.

† T. M. Logan, M. D., of Sacramento, Cal.

by any written constitution or laws, is likely to be followed by the most pleasant results. It is the "*Rocky Mountain Medical Association*," and composed *only* of gentlemen who *crossed* the Rocky Mountains on that occasion from the East to the West. It is intended that so long as any members may be living they shall assemble annually at the time and place selected for the meeting of the American Medical Association, and continue to do so until Time shall blot the organization from the page of history.

The following is the roll, which I hope may be called at every session:

Alabama.—J. S. Weatherly.

Connecticut.—E. K. Hunt; J. W. Phelps; Wm. Woodruff; Henry M. Knight; Charles L. Ives; B. H. Catlin; Alfred North.

District of Columbia.—Joseph M. Toner.

Illinois.—A. Fisher; V. L. Hurlbut; W. A. Knox; D. L. Crist; N. S. Davis; J. O. Hamilton; G. W. Hewitt; J. P. McLanahan; A. L. McArthur.

Indiana.—James A. Adrian; M. H. Harding; J. H. Helm; George Sutton; George W. Mears; Jas. F. Hibbard.

Iowa.—A. C. Roberts; S. B. Thrall; J. Williamson; J. C. Hughes.

Colorado.—John Elsner; R. G. Buckingham; George R. Bibb.

Kansas.—D. W. Stormont.

Kentucky.—John D. Jackson; T. N. Wise; D. W. Yandell.

Maryland.—John Morris; D. A. O'Donnell; Ninian Pinkney.

Massachusetts.—George N. Thompson; Ephraim Cutter; H. R. Storer; E. B. Moore.

Michigan.—Bolivar Barnum; Loman S. Stevens; S. H. Douglass; Edward Kane.

Missouri.—J. S. Moore; J. B. Johnson; F. C. Castlehun; W. S. Golding.

Minnesota.—C. Powell Adams; Albert Alonzo Ames; Alfred Elisha Ames; N. B. Hill.

New Hampshire.—John W. Parsons; J. L. Swett.

New Jersey.—William Elmer; J. S. Crane; D. M. Sayre.

New York.—Jas. H. Armsby; J. H. Rathbone; T. D. Strong; C.

V. Barnett; H. K. Bellows; A. J. Long; G. S. Winston; Sam'l G. Wolcott; Jas. W. Scribner; B. F. Dawson; E. M. Curtis; George Douglas.

Ohio.—A. E. Heighway; Elwood Stanley; Geo. Mendenhall; B. S. Brown; Rob. S. Gilchrist; Jno. W. Russell; J. W. Shively; Wm. Thomas; D. B. Cotton; W. J. McDowell; A. B. Hovey; J. A. McFarland; R. M. Denig; Gustavus Bruhl; A. H. Agard; H. J. Donahoe; A. B. Jones; O. M. Langdon.

Pennsylvania.—W. J. Asdale; Jas. King; R. B. Mowry; A. M. Pollock; R. S. Sutton; Wm. M. Findley; R. H. Townsend; J. J. Zitzer; Jno. Curwen; W. S. Duncan; Jas. P. De Bruler; John F. Hilliard; D. J. Bruner; Geo. A. King; M. F. Robinson; J. Ross; N. L. Hatfield; Washington L. Atlee; F. G. Smith; Alfred Stillé; B. Gillett; Ch. H. Thomas; Wm. B. Atkinson.

Rhode Island.—Geo. L. Collins; L. F. C. Garvin.

Vermont.—Henry Janes; H. D. Holton.

West Virginia.—Robert H. Cummins; E. A. Hildreth; E. H. Moore; Jno. Frissell.

Wisconsin.—J. K. Bartlett; D. Mason.

In this roll-call of 123 names of members of the "Rocky Medical Mountain Association," no response is made to that of Robert H. Cummins, of Wheeling, West Virginia. On our trip to and through California, all who remember how he won our affections by his gentleness, his genial and unassuming manner, and delighted us with his rare intelligence, will grieve to hear this day that he is numbered with the dead. (Dr. Atlee then gave an admirable sketch of the life and professional services of Dr. R. H. Cummins: but as biographies of all our number appear in alphabetical order in another part of this volume, it is omitted here.)

At the conclusion of Dr. Atlee's address, Dr. Morris, of Baltimore, proposed that the Association meet annually at the time of the meeting of the American Medical Association, and that a dinner and oration

form part of the proceedings of each meeting. Dr. Morris was authorized to make arrangements for such dinner. The Secretary was also directed to have cards of membership prepared. Cards of honorary membership for the ladies who accompanied members on the journey to the Pacific were also ordered to be printed and delivered to those entitled to them.

Dr. B. H. Catlin, of Connecticut, was then elected President, and Dr. John Morris re-elected Secretary and Treasurer. The meeting then adjourned to meet in Detroit in 1874.

THIRD MEETING, 1874, IN DETROIT.

The Rocky Mountain Medical Association held its annual meeting in the large parlor of the Russell House, on Wednesday evening, the 3d of May. The chair was occupied by the President, Dr. Catlin, of Connecticut. The proceedings of the last meeting, held in St. Louis, were read by the Secretary, Dr. John Morris, of Baltimore, and approved. The President then delivered the annual address, which was listened to with marked attention.

DR. CATLIN'S ADDRESS.

Ladies and Gentlemen:—Some time during the session of the American Medical Association at Philadelphia, in 1872, a number of the delegates who attended the meeting in San Francisco the year previous met and formed the Rocky Mountain Medical Association. The pleasure of attending this preliminary meeting was not accorded me, though I was in the city at the time. The next anniversary of this Association was held in St. Louis, where we had the pleasure of listening to an

excellent address from our worthy President, Dr. W. L. Atlee, of Philadelphia. The number present being small, it was decided to make an effort to create more interest in our annual meetings. Our Secretary was requested to make provision for a dinner, to issue cards of invitation to the members, their wives and daughters, constituting the latter honorary members. We congratulate you upon the success of the effort, and we welcome you most cordially to this festive board. According to the custom of the inhabitants of many nations, hospitality is never complete till host and hostess have sat down at the same table and eaten their bread together.

One object of the American Medical Association is to promote social intercourse between the members of the medical profession residing in the various parts of our wide-extended country. This, though a subordinate motive, is one of considerable importance, and it has proved in some measure successful; but the time appropriated to this purpose at each meeting of our Association has been so extremely limited that those who only occasionally attend derive little pleasure or improvement from this source. Those who attend every year greatly extend their acquaintance with the members of the profession, and are much profited by the social intercourse thus enjoyed.

You will not expect me on this interesting occasion to give you a scientific address, or one relating to the practical part of our profession. You would doubtless desire something witty and humorous, as better adapted to a social and friendly gathering. Unfortunately, your President has neither wit nor humor. The only reason

(as he understood) given for his selection to this honorable position was that he was the oldest of those who crossed the Rocky Mountains to attend the meeting in San Francisco. Age is honorable (or should be), but it is not promotive of wit or humor. You will have, then, at this time, to listen to a few plain remarks from a plain, matter-of-fact man, and select for your next President one who is better qualified to address you on an occasion like the present.

It is perfectly apparent to all my medical brethren that the daily life and pursuits of an active practitioner of medicine and surgery afford few opportunities for social enjoyment or for the cultivation of his conversational powers. A physician who makes from fifteen to thirty or sixty visits a day has barely time to ask a few questions necessary for the investigation of his cases, and give directions for their treatment. He has hardly time to pass the compliments of the day, much less to enter into conversation upon the passing events of the period. Even those of us who have a less number of patients have little time for any object except the bare routine of our daily toil. We have abundant opportunities for the exercise of our sympathies, but little for the cultivation of those talents that would make us ornaments and leaders in society. We have occasionally heard of some and known other physicians who were eminent for their wit and ability to entertain an audience by their interesting conversations. Dr. Jared Potter, who lived six miles from my present residence, and practised medicine and surgery in Wallingford (Meriden then being a part of the same town) from 1772 till his death in 1810, was very emi-

nent for his extensive reading and great conversational powers. He was in his day the most illustrious physician and surgeon in Connecticut, and had an extensive consultation practice. For many years he kept a medical school, in which several of the most eminent physicians of Connecticut were educated. Dr. Lemuel Hopkins, who settled in Hartford, Connecticut, and became the most able practitioner in his county and State, was his first pupil. He was (says his biographer) "a star of the first magnitude in the constellation of poets and political writers who were distinguished about the time of the Revolution and after that event. He was associated with Governor John Trumbull, Joel Barlow, Gen. David Humphrey, and other distinguished men of Connecticut, and out of the State they were generally known by the appellation of the Hartford wits." One of the poems of Dr. Hopkins was "An elegy on the victim of a cancer quack," which, as it is a brief article, I will take the liberty to read. (The poem was recited with effect, but it is omitted in this publication as it may be readily seen in a volume entitled "American Poems." Dr. Catlin continued:)

The late Professor William Tully, who died a few years since in Springfield, Mass., was distinguished for his conversational powers. The speaker has listened to him on many occasions for hours with great pleasure and profit. He was a very learned man, but like some others of our profession his practice was not extensive.

These old doctors took life more quietly than those of the present day. One of my predecessors, and for a few years a contemporary, the late Dr. Hough, of

Meriden, related many amusing facts about these old doctors, with whom he was well acquainted. He said that Dr. Potter and Dr. Anderson, of Wallingford, when called to visit a patient in an adjoining town, only six miles distant, never thought of returning the same day. They not only had long consultations with the attending physician, Dr. Andrew Sheving, but entered into extended conversation with the friends of the sick.

The few brief opportunities for social enjoyment we have had at the annual meetings of our Medical Association have been deficient in one important element—few of our wives and daughters have been present. Medical men differ in regard to the propriety of admitting women to an active participation in our conventions, and many of us have had serious doubts of their being constitutionally and mentally adapted to the study and general practice of medicine and surgery. If they are thoroughly educated in the profession, they may be eminently useful in the practice of some special diseases of their own sex. Whatever may be our individual views on these points, all will most cheerfully welcome them on all social occasions like the present. We believe that the prevailing custom of organizing clubs or societies composed only of men is pernicious in its influence. They take men from their families at times when they should be with them, and their tendency is to barbarism. Small societies or circles composed of both sexes, similar to those that have been held in Boston, for conversation, discussion and improvement, would be altogether more profitable. Woman, by the quickness of her

apprehension and the brilliancy of her intellect, is eminently qualified to be a leader in conversational and intellectual unions.

According to the records, one hundred and twenty-three delegates (not counting seven members of the army and navy whose residences are not given) crossed the Rocky Mountains to attend the meeting in San Francisco. Of these, as far as we are informed, only one has died, Dr. Cummins, of West Virginia, an obituary notice of whom was read to us last year by our President. Our journey, my dear friends, over the Rocky Mountains, was an important event in our lives, the remembrance of which is a constant source of enjoyment, and will continue to be such while life and memory last. The great length of our journey, extending across the continent, even if it had been a monotonous one, would have interested us; but those vast plains extending west from the Missouri river, apparently so level, yet ascending so that at Sherman we reached the height of 8,240 feet above the ocean; the snow-capped mountains; the situation and peculiar civilization of Salt Lake City; and more than these, the wild and romantic Sierra Nevada, the rocky canon, the desert of the great western slope of our continent, the view of the eastern shore of the vast Pacific Ocean, the cities and towns of this, to us, new and strange part of our country, were each extremely interesting to us. Even those dreary alkaline deserts had their lessons. Those journeys to the Big Trees, the famous Yosemite, and other places of interest, gave us great pleasure at the time, and a life-long remembrance of them will be a constant source of en-

joyment to all those who were so fortunate as to participate in them. Those who went in parties had rare opportunities for forming new acquaintances, for social intercourse and the study of character. The traits of character which we observed in different individuals are still fresh in our memories. Those of our party will remember that evening ride from Hutchins' to Hodson's; that cheery inquiry that passed along the line: "How is my lady love?" the bridal chamber and the magnificent entertainment at Hodson's; the legend of Old Culver, who, stepping into the river, was carried by the force of the current down the stream, and was shot out a rod or two from the end of the water-spout. Who does not remember Rob, with his umbrella, and the eccentric widow that accompanied him? Our observations were, of course, limited to a few localities and our traveling parties. If those of us who are present on this interesting occasion could take palace cars, go over our journey in company, visiting all places of interest, what a splendid opportunity we should have for the study of character and for the cultivation of our social and conversational talent! But as this cannot be, let us improve the opportunity these yearly gatherings afford us in living over the experiences that were so conducive to our happiness at that time.

At the conclusion of the address, on motion of Dr. Atlee, of Philadelphia, a vote of thanks was unanimously tendered to the President for his entertaining address.

On motion of Dr. Bartlett, of Milwaukee, the Secretary was requested to make arrangements through

Dr. Yandell for a dinner at the next meeting, in Louisville, in 1875.

Dr. G. W. Mears, of Indiana, was then elected President, and Dr. John Morris, of Baltimore, re-elected Secretary and Treasurer.

FOURTH MEETING, 1875, LOUISVILLE, KY.

The Rocky Mountain Medical Association met in the large parlor at the Galt House, Wednesday evening, May 5th, 1875, and was called to order by the President, Dr. Mears, of Indiana. Proceedings of the last meeting were read by Dr. Morris, the Secretary. The President then delivered the annual address.

DR. MEARS' ADDRESS.

It is a sad thought, ladies and gentlemen of the Association, that we must again this year mar the festivity of the occasion by allusion to the inroads which death is making upon our small band; nevertheless it seems proper that the archives of the Society should be supplied with suitable memorials from year to year, of those missing members who participated in that remarkable excursion across the continent, the anniversary of which we are here to celebrate. It is a trite remark that death is "no respecter of persons." Assuredly, in his dealings with the Rocky Mountain Medical Association during the past year, the adage has been fully verified, since three of our esteemed members have been selected to swell the obituary list.

The first of these was the late Professor George Mendenhall, M. D., of Cincinnati; the second, the late Professor James P. De Bruler, of Evansville, Indiana; the third, Dr. D. A. O'Donnell, of Baltimore, Md.

(Dr. Mears read carefully-prepared sketches of the lives of these three physicians, but they are omitted here for the reason that they appear in another part of this volume.)

Assuming the ground, ladies and gentlemen, that the object of the present meeting is more a social than a professional reunion, designed chiefly to promote and maintain pleasant personal relations rather than scientific objects, it occurs to me as more germane to the purposes of the Association that we should, for the time being at least, ignore all odor of the shop, and devote a few moments to some reminiscences of our memorable expedition to California.

There is, as judged from my standpoint, no feature in the ever varied and attractive scenery of our country, whether natural or artificial, which so much challenges the wonder and admiration of the western traveler, as that element of which no language expresses an adequate idea but the term *magnitude*. It appears to characterize all classes of objects, and seems singularly cumulative in development as we proceed westward. As a starting point we may take the Alleghany Mountains in their rugged height, precipitous defiles and deep gorges, as a very creditable illustration of our position. Passing hence over the great Valley of the Ohio, no less distinguished for the variety and beauty of its landscape than for its vast extent, we reach Chicago, which stands as a monument of man's successful effort to produce everything connected with it on the largest possible scale. Its railroad system, its water works, its system of sewerage, its parks, its drives, its hotels, its public buildings, its elevators, its

grain trade, its lumber business, surely all these are evidences of magnitude. Here too we find ourselves at the very door of the "Grand Prairie," appropriately named as designating its almost limitless dimensions. Further on we approach the Mississippi, which, joined by its turbid affluent, winds its wide, deep and tortuous way to the Gulf of Mexico. The term "Father of Waters," by which it is ordinarily distinguished, quite sufficiently characterizes its claims to a place in this category. West of and near to the Missouri River, the longest stream in the world, we enter upon that vast expanse of territory recognized as "The Plains," which, in their extent and solitary grandeur, are without a rival, unless, peradventure, it may be found in those arid, illimitable and desolate steppes of Russia. Wearied with the sameness of these uninteresting wastes, the traveler finds the long-looked-for relief by discovering in the dim, distant horizon some peaks of the "Foot Hills" as they are painted against the clouds. Anon climbing unconsciously, albeit ascending constantly and positively, the iron horse, "defying the mountain's deep decline," urges us aloft, until we find ourselves perched upon the summit of that marvel of picturesque grandeur, the Rocky Mountains. There in their rugged wildness, cavernous depths, barren desolation, and towering snow-clad peaks, nature in its bounty seems to have created on the very largest possible scale—a scale, indeed, of surpassing magnitude.

If I have seemed in the least degree to exaggerate the prominence of the element in question in my travels thus far, what may be said of a truthful picture of California—beautiful, luxuriant California! Here

we find a land which spreads out its incomparable landscape from the highest peaks of the Sierra mountains on the east, to the largest, deepest, and grandest of oceans, on the west; and which produces everything in nature, from the strawberry to its famous big trees, from the dark and deep cañons of its coast, ranges to the renowned Yosemite Valley, of the most gigantic pattern. Feeling myself wholly inadequate to the task of a faithful portraiture of such a country, I propose, in conclusion, to leave to other writers, who doubtless receive their inspirations from those marvelous surroundings, to tell the story of its greatness; albeit a few grains of allowance should occasionally be made in accepting even their descriptions, as due probably to poetic license. It will certainly, for instance, require the experience of one's having been treated to a coach-and-six drive over those gentle declivities, down which *en route* to the Geysers poor Mr. Greeley was so unmercifully jolted a few years since, to appreciate fully the following story of Bret Harte's.

(The amusing poem of the "Stage Drive" was well rendered by Dr. Mears. It may be seen in the work of the poet referred to and is, therefore, omitted here.)

At the conclusion of Dr. Mears' address, a vote of thanks was tendered him by the Association. Dr. B. Gillett, of Franklin, Pennsylvania, was elected President, and Dr. John Morris Secretary and Treasurer. The following resolutions were unanimously adopted:

Resolved, That this Association learns with profound regret of the illness of our friend and fellow-member, Dr. John D. Jackson, of Danville, Kentucky, a gentleman who has endeared himself to us by his gentleness, refinement and culture; and we beg leave to tender him our earnest sympathy in his sufferings, and our sincere wishes for his speedy recovery.

Resolved, That the Secretary be instructed to transmit to Dr. Jackson a copy of this resolution.

The Association then adjourned to meet in Philadelphia, June 7th, 1876.

JOHN MORRIS, *Secretary*.

FIFTH MEETING, 1876, PHILADELPHIA.

The Rocky Mountain Medical Association met at No. 1400 Pine St., Philadelphia, June 9th, 1876, the President, Dr. Gillett, in the chair.

In the absence of the regular Secretary, Dr. L. S. Stevens, of Three Rivers, Michigan, was appointed to act in his place.

After the reading of the minutes of the last meeting, the President delivered the annual address.

DR. GILLETT'S ADDRESS.

Gentlemen of the Rocky Mountain Medical Association.:—The annual reunion of our unique Society again occurs. Its aspect being mainly social and reminiscent, we meet to review the pleasant remembrances and friendships originating in an overland journey of several thousand miles, through the vast area owned and occupied as our common country, to plant the standard of American medical science, and wave it with all the prestige of the American Medical Association, on the spot where the flag of our country "opens to sunset the gateway of gold."

"Hail! land of the mountain and land of the lake.

Whose streams ever roll with magnificent tide;

Where the souls of her heroes from slumber awake,

And hallow the soil for whose freedom they died."

This Centennial occasion may justify recurrence to youthful enthusiasm. Our devotion to a noble profes-

sion needs no apologies, save as we fail to come up to a proper comprehension of its almost inconceivable magnitude. Our Association from its very nature and character admits not of increase. The march of time in its inevitable order makes our decrease absolutely certain. We look around with eyes of eager recognition; and while we gratefully rest on the familiar countenances of esteemed and cherished friends in our Association, yet we sorrowfully look with lingering gaze on the vacant places of those well known and loved among us who have laid off their well-burnished armor, never tarnished by a dishonorable stain, and leaving us in sorrow behind, have triumphantly passed over and joined the throng of the immortals. It becomes my painful duty to add the names of Dr. Wm. Thomas, Bellefontaine, Ohio; Dr. Edward Kane, Detroit, Michigan; Dr. E. M. Curtts, Oneida, New York; Dr. J. D. Jackson, Danville, Kentucky; Prof. Armsby, Albany, New York, and Drs. Ames and Hill of Minneapolis, Minnesota, to the list of vacancies in our ranks during the past year, which unavoidably stir our tenderest sensibilities, who have passed on before us to their well-earned rest. They are not to be mourned over as those without hope. They have been gathered home to the bosom of God, each "as a shock of corn in its season fully ripe." Peace to their ashes: their memory is green. May we each in his season be worthy to join them, with our individual escutcheon as untarnished as theirs. In the list of vacancies we may be permitted to mention more particularly the name of Dr. Cummins, of Wheeling, W. Va., who has in his manly prime and usefulness met the summons and

passed over. The only wonder is that more of us do not pass sooner those portals whence none return. There is no profession on this planet which exacts of its members so high a standard of qualification and self-abnegation as does ours. Though other professions have their times of rest and relaxation, ours never has. We are liable at any moment, night or day, to be called upon for the highest and best exercise of our skill and scientific knowledge. Is it any wonder that our brightest, most sensitive, and most enthusiastic spirits so soon wear out and burn out in this everlasting draft on our vital capabilities? The premature decease of Dr. Cummins will long be mourned by those of us who had the privilege of knowing him personally and thus learning his worth, and also by those who, only knowing him by his general reputation, yet have the honor and progress of the profession at heart. He was an ornament to our ranks; and if length of years had been added, would without doubt have proved a shining light among us.

But while we truly mourn the departed from our thinning numbers, it must not deprive us of the pleasure and pride we may justly feel in the personal and professional association with us of those honorable members whose skill and success in ovarian, rhinoplastic and general operative surgery have given them a world-wide reputation, and made them the peers of the most noted of earth's surgeons; and in the scientific and skillful grappling with disease in all the protean forms in which it assails humanity, we do not feel like lowering the standard of this Association before the proudest claims that can be set up by the older

civilizations and science of the Old World. We do not wish, or intend, any disparagement to the older organizations, on either continent. We simply wish to express the feeling that we have the material and spirit to equal their highest advance in medical science and skill; and we hope we may be permitted to say without undue boasting, that let the rest of the scientific medical world mount as high as they may, we have the ambition to try to carry our standard to still grander heights, and then we will depute our youngest, brightest and bravest spirits to write on its lofty folds—*Excelsior!*

As our time is necessarily limited, it is only possible to take a passing glimpse at a very few of the multitudinous influences encountered by our profession, which go largely to make up the sum-total of medical consideration, influence and usefulness. In the first place we must say, that no foundation can endure, for permanent reputation and usefulness in our profession, that is not well laid up in solid blocks of granite science, cemented well by truth, honor, and the highest consequent personal integrity.

We, however, sometimes learn from the humblest sources items of practical value. I know a doctor who, early in his practice, encountering a case of gastritis, accompanied with most obstinate vomiting of all his most approved remedies, saw a motherly old Irish woman take a cloth, dip it in ice-water, and apply it to the throat of the patient. The effect was almost magical. The sudden impression of cold over the pneumogastric revealed to the young doctor, nearly one-third of a century since, an important

therapeutic agency which he had not before learned, but of which he has never lost sight since that time. Not a word was said on either side. The act was performed with no thought or wish but to do good. The observation was made in the same spirit; and seeing the relief so well and quickly accomplished, the fact has been utilized in his practice ever since. It had never, to his knowledge, been previously taught, so it was a revelation or discovery to the young doctor at any rate.

Another observation twenty or twenty-five years since, of a mother trying to nurse her infant that had its nasal passages obstructed. The infant would rock its face, seize the breast, let go, spring back and scream. The mother dropped the child on its back, head lower than the body, and poured from a tea-spoon into its nostrils warm milk, applied it to the breast, and it swallowed without difficulty. The thought suggested itself to the observer, that if œdema and dryness of the nasal passages was so quickly relieved by the moisture, why would not inhalation of moisture in vapor or steam relieve the stridulous breathing of croup? An opportunity soon presented, and he made the experiment to test its value, and being so well satisfied with the result, and in full belief of its almost universal efficacy in this disease, when not accompanied with diphtheria or eruptive fever, he has used the vapor in practice ever since. At the time of the discovery it was a revelation to the observer.

Our profession brings us to the extreme of pioneer life and high civilization. I knew a young and poor doctor whose practice approximated and often included

both. One evening he was called on to see and prescribe for the only son of one of the richest and most aristocratic families of the country. He was lodged in a palatial room, and slept on a carved mahogany bedstead, with grand pillows so nicely ruffled that he thought it wrong to waste so much labor for so little. So he laid the ornamental pillows aside, and found ample support for his weary head on the corpulent bolster. His next night's rest was in a log cabin in a distant lumber region. The beams of the cabin were so low that he had to stoop in moving about, to obviate unpleasant collision of his head with the beams of what was by courtesy called "the loft"—he was slightly tall. When tired nature imperiously demanded repose after his arduous ride, his only possible chance appeared to be the cradle, where the family baby had reposed, and left its fragrance—not of the rose. Trying thus in vain to find sleep, his practical sagacity discovered an old round-top trunk, with cover of raw skins with the hair on. He appropriated this, drew it against the logs of the cabin wall on the leeward side, placed one chair for his head, another for his feet, and shivered it out until morning, with the thermometer below zero. Notwithstanding all this, and much more, he "still lives," and has an exalted opinion, perhaps the most exalted of living men, of his profession.

In the consideration of extremes, I will briefly allude to an incident that many of us will vividly remember. When riding in palace cars, 850 miles west of the Missouri River, at a station we saw a man sitting on the platform who had been brought there on

a rude stretcher, to be placed on board of the cars to be transported to the nearest military hospital, where efficient treatment could be obtained. This man had a courage which few could equal. Having no higher outlet, he very naturally became a Nimrod, or as "the ancient scroll" would say, "a mighty hunter before the Lord." In this capacity he invaded the private sanctum of a she grizzly-bear, which resented the intrusion intensely; a conflict ensued, ending in a mortal struggle as to which was the "fittest to survive." The bear was huge and powerful on destructive muscle. The man was great on personal skill, courage, and ready resource. The result, after a running fight of many miles, and the last encounter, was a dead grizzly, and a badly-hurt *homo*. But the logical sequence, even out in the savage wilds, is "brains forever."

Our profession has been noted for centuries, in fact since its earliest known history, for the number and accuracy of its careful, patient, and faithful observers. Among the subjects of observation, one of the most constantly urgent and pressing in its claim for individual attention, is that of *epidemics*. In truth, we know but very little concerning epidemics, except their manifestation and progress. Sydenham, the father of English medicine, writing on this subject two hundred years ago, attributes them "to the different constitutions of the air." But neither he nor any one since has been able to crown his brow with the wreath of victory, by telling us, or demonstrating to us, what these mysterious constitutions are. We have witnessed epidemics of crime, epidemics of religion, epidemics of temperance, epidemics political

and social. The most recent we have observed is the crusading epidemic, which burst on the social vision in full-developed eruptive stage at once. All violent epidemics seem to be short-lived, as witness the very rapid fading of the brilliant crusading coruscations. We have a glimmering, hazy remembrance of political epidemics, in which a regular witches' cauldron of incongruous elements obscurely bubbles up in memory. It is quite regular now with us in its quadrennial manifestations. But its particular type is very liable to change with each quadrennial manifestation. As we may be taken up sharply here, we will not proceed further in this direction than merely to remark, that from our present standpoint we feel unable, in a brief analysis, with any degree of satisfaction to determine which is most destructive and disorganizing at present—the cholera, the epizootic, or our quadrennial political epidemic eruption. In our perplexity, if we could muster faith as a mustard seed, we would be inclined to put up the petition, "from all these, good Lord, deliver us."

We have those who are curious to observe, collate and diagnose the Centennial symptoms, civil and political.

As our planet is careering through infinite space on its annual journey around its superior the sun, at the rate so inconceivable of 68,000 miles per hour, and as the sun itself with all its attending broods of worlds and moons, appears to obey the same inscrutable law of calculable yet really incomprehensibly rapid motion in space; and as the universe is a *plenum*, who can tell what epidemic influences for good or ill may fall in our way and impart strange and startling "con-

stitutions" to our aerial ocean? Who has yet been able to learn and teach us the origin of any of our specific diseases? Their origin is veiled in the, as yet, impenetrable obscurity which envelop man in the pre-historic ages. Whether they come from any peculiar combination of mundane agencies, combining only in periods too remote for any existing historic records, or whether originating in some malign influence swooped from infinite space in our incessant revolution through its vast depths, and this mixed in and with our aerial envelope, our vital breath, too often alas! our mortal demit from "life's fitful fever," who among the wise of this planet *can tell*? Concerning all this, as yet, who of our profession has been able to do much more than indulge in careering efforts of the imagination, not much unlike the fabled celestial charioteer who undertook one day to drive the winged coursers of the chariot of the sun?

Another question is steadily growing in importance in the civilized world, and is quietly, yet with inexorable urgency, saddling itself on our profession and demanding solution at our hands. Almost the entire judiciary of the world seem to be simultaneously and involuntarily looking to us for light to disclose the scientific way out of the hazy labyrinths of criminal jurisprudence. This question of questions is, "The relation of crime to disease." We do not pretend to be able satisfactory and conclusively to answer this momentous question, involving as it seems to do some of the pillars on which the jurisprudence, and civil, and even theological, structures of the world have long rested. But we hope we may be permitted mod-

estly to indicate the road, in which our feeble steps have led us, without giving offence to any; as surely none is intended. We only seek the truth—the Beatrice of Dante, the Philosopher's Stone, the universal solvent of the Alchemist, the guerdon for which all true souls are in quest. "It is admitted that whatever is physiologically right is morally right, and whatever is physiologically wrong is morally wrong: we have no right to do ourselves harm." What is health? In what "highest state of balanced power, physical, intellectual and moral," does it consist? The simple reply will readily occur to you all, and perhaps even provoke a smile by its very simplicity. It consists in being in conformity to the laws of the universe, intelligent and voluntary or involuntary. There cannot be health and well being in any violation or want of conformity to these laws. Then disease is clearly the opposite of health, and comes from ignorant and involuntary violation or willful want of conformity to the universal laws. Sin, as it is called theologically, or crime, as it is called in criminal jurisprudence, is violation or want of conformity to universal beneficent law. All crime therefore is disease, and is amenable to proper treatment.

We would not, however, intimate that the external application of the outer fibre of our *Cannabis Americana* would not be a very salutary remedy for some forms of disease, although it might be classed as heroic treatment of a suspensory character. All our treatment is not of this kind. I will relate how a doctor of medicine treated a case of religious despair. He found an old grandmother, who had been left a widow

on the frontier with a family of small children on her hands, to feed, clothe, and educate. She shouldered her burden, and carried it nobly and well, until the last child was settled in life; then her weary spirit sought the long-anticipated rest, of a home with her children and freedom from care. Having been good all her life, without going through any formula to become so, and always having a strong sense of duty, she began in her season of rest to attend protracted meetings. She listened attentively, again and again, and feeling it impossible to go through the prescribed form, she gave it up in despair, and came to the deplorable conclusion that she had "sinned away her day of grace." In this condition the doctor of medicine was called to prescribe. He found the old mother, who had fought life's battle so bravely and well, in agony, walking her room night and day, wringing her hands, wasted to a skeleton by the intense mental torture. He gave the needful restoratives for her exhausted body, and went at her notion that a frail mortal, ill-begotten perhaps, and unfortunately and unfavorably placed, can by any possibility sin away its day of grace. Says he, "Grandma, you have a son, your youngest (he was her Benjamin, a little wild); how badly would he have to behave, and how long, until you would forget you were his mother; and not only that, but when he was poor and in want, and sick, you would beat and abuse and torture him, and deprive him of any chance for comfort and health?" The eyes of the old lady began to glitter with an ominous and dangerous light, and the doctor moved in his seat, ready to jump out of the way, as she vociferated, "Why *never*, doctor, *never*!

how dare you talk to me in that way?" The doctor settled back in his chair, well assured of the situation, and that victory would crown his efforts. Giving time for the patient to nurse her wrath over his unnatural suggestions, he returned again with the questioning remark: "Oh, you wouldn't, then, if he were ever such a sinner?" The response was like the growl of a bear that fears the robbery of her cubs. "Well, then, grandma, as God is our Father, and we are all His children, don't you think He is almost as good as we are? If we frail erring mortals cannot be made so demoniacal as to torture our sinful children for a short time in this fleeting existence, can we for a moment suppose the God of Infinite Love can torture His erring sinful children to all eternity?" The argument to the maternal heart was conclusive. The despair gave way, a new and joyous light began to light up her weary eyes, and looking at the poor doctor, clasping both hands over a tumultuously beating heart, she exclaimed, "Oh, doctor, this must be true!" There was thence a new departure, and plain sailing into the haven of healthy peace. This interesting and most distressing phase of human experience had to be solved without delay, or reason would have been dethroned, and health ruined for life. The emergency was met by the doctor as an experienced mariner encounters a storm, seizing the helm firmly with both hands, holding the ship's bow across the breakers, guiding by his instincts till all danger is past; then he has time to take his bearings, find his position and direct her course. The good mother recovered, and has ever since gone happily on her way; and the poor

doctor has gone limping on his course, well satisfied with the result.

In conclusion, gentlemen of the Rocky Mountain Medical Association, after so many trivialities, which are not intended to offend the most aesthetic taste, but are simply the stray culls and wild fruits and flowers of our scientific frontier, permit me to say a few words of the greater demand and paramount need of our profession to humanity over that of all others on earth. Our profession stands among others like "Saul, the son of Kish" among the Israelites, "head and shoulders above them all." It stands like Cerberus at the portals of human progress, and zealously hunts out and shuts out all shams. Nothing that has not the impress of true value can find abiding shelter with us, although shams may dangle around us for awhile like *ignes fatui*, but they soon die out for the want of necessary fuel. We take into our range as practitioners of the healing art, all the causes which operate on the human organization for good or ill, from the lowest and most trivial to the highest of which humanity is capable. We protect, regulate, and guide the organizations of the afflicted in accordance with the laws of their structure, development, and conservation, with as much assurance of better results as the engineer who guides his train with vigilance and care is assured of the train reaching its destination with safety, and does it all in harmony with the laws of its combination, and of steam, wood, and water. In every phase of human society the demand for our knowledge is of first necessity, in order to protect communities from the ravages of disease, epidemics,

pestilence, and death. All the attainments of the mind and possessions of the earth are only valuable as we have life and health to enjoy their manifold benefits. Without life all is lost, and without health there is only fitness for the enjoyments of life in proportion to the measure of its possession; hence the greater necessity for our profession to bring order out of disorder, and relieve all the disturbances of mind or body as essential to the happiness of mankind.

And nearly a half-century of hard labor and earnest devotion to the practice of our *art*, with all the consequent self-abnegation and suffering endured, yet it affords me that satisfaction in the evening of life, that if I had mine to live over again I would be a physician, only I would aim to be a revised edition. The reminiscences of the past are so full of pleasant pictures of lives saved, of sufferings relieved, and comforts restored, that I hope to be excused for the allusion to this self-gratification. We will not forget, in brief, to acknowledge the feeling of a just pride in the progress of our profession in every department of its work for the last century, and I feel well assured it will be carried forward to still higher achievements and nobler results, and continue to merit the gratitude of mankind.

At the conclusion of the address, on motion of Dr. Harding, of Lawrenceburg, Ind., the thanks of the Association were tendered to Dr. Gillett and a copy requested for publication.

Dr. J. M. Toner, of Washington, was then elected President, and Dr. John Morris, of Baltimore, re-elected Secretary and Treasurer.

A motion was then passed requesting all the mem-

bers to furnish data for a short biography to be incorporated in the next address.

The Association then adjourned, to meet at Chicago, in 1877, on the second day of the annual meeting of the American Medical Association.

L. S. STEVENS, M. D., *Secretary pro tem.*

SIXTH MEETING, 1877, CHICAGO.

The Rocky Mountain Medical Association met in Chicago, in the large reading-room of the Palmer House, Wednesday evening, June 6th, 1877. The President, Jos. M. Toner, M. D., in the chair.

The proceedings of the last meeting, held in Philadelphia, were read and approved.

The President then read an interesting and carefully prepared address, embracing many facts of an historical, archæological and scientific character, which was listened to with close attention by a large and appreciative audience.

He also submitted short sketches of the lives of the members of the R. M. M. A., living and dead.

At the conclusion of the address, a vote of thanks was tendered Dr. Toner, and a committee of three, consisting of Drs. N. S. Davis, John Morris and Jos. M. Toner, appointed to have the address published, in connection with the biographies of the members, as well as the proceedings of former meetings, so as to embrace a full history of the Association.

Doctor N. S. Davis, of Chicago, was elected President, and Dr. John Morris, of Baltimore, Secretary.

The meeting then adjourned to meet at Buffalo, the 5th day of June, 1878.

JOHN MORRIS, M. D., *Secretary.*

BIOGRAPHICAL SKETCHES.



BIOGRAPHICAL SKETCHES
OF
THE MEMBERS
OF THE
ROCKY MOUNTAIN MEDICAL ASSOCIATION,
ARRANGED ALPHABETICALLY.

ADAMS, CHARLES POWELL, M. D., of Hastings, Minn., was born in Rainsburgh, Bedford Co., Pa., March 3, 1831. His grandfather on his father's side was a soldier in the Revolution from Virginia, and died at the age of ninety-eight years. His ancestors came from England and settled at Jamestown, Va., about 1645. The subject of this sketch received a liberal education at the public schools, and then at West Bedford Academy, in Coshocton County, Ohio. When eighteen years of age he commenced the study of medicine with Dr. W. R. Waddell, in the town of West Bedford, with whom he remained for one year, and then became a student of Drs. Crumley and Pierce, in Amity, Knox Co., Ohio. Attending the usual course of lectures, he graduated at the Ohio Medical College in 1851. In 1852 he commenced the practice of his profession in Waymansville, Bartholomew Co., Ind., and in February, 1852, was united in marriage to Mary Florence, daughter of Rev. Alvin Buxton, of that town.

From overwork and owing to a malarial climate, his health began to fail in 1854, so that he removed to Hastings, Minn., where he has ever since resided, engaged in the duties of his profession. In 1856 he was elected a member of the Territorial Legislature, and although but twenty-five years of age was appointed Chairman of the Committee on Incorporations. The railroad interests then looming up, and the Government grants of land being disposed of by the Legislature, made it a most important committee. In addition to his professional duties, he assumed the editorship of the "Hastings Democrat" in 1859, which he continued to conduct until the firing on Fort Sumter, April 14, 1861, when he at once enrolled as a private soldier, but in the choice of officers was elected Captain of Company H, First Regiment Minnesota Volunteers, and mustered into service on the 29th of the same month. He was in every battle from the first Bull Run to that of Gettysburg, and was a number of times wounded: slightly, in the arm, at Bull Run, July 21, 1861; severely, in the left groin, at Malvern Hills, July 1, 1862; at Antietam, September 17, 1862, severely, in the left shoulder; at Gettysburg, July 2, 1863, in five different places—through left cheek and lung, in the left groin, breaking femur near the trochanter major, in the left thigh about the lower third, and in the right side of the abdomen. Was left for dead on the field, but, fortunately, found and cared for by his comrades. Was first taken to the hospital at Littlestown, and then to Baltimore. Was compelled to use a crutch for eighteen months. Has two balls and one buck-shot still in his body. Major-General Hancock, in his re-

port of the battle of Gettysburg, mentions the gallant conduct of Lieutenant-Colonel Adams in terms of high praise. He held during the war the following commissions: Captain, Major, Lieutenant-Colonel, Colonel, and Brevet Brigadier-General. The doctor was retained in service and placed in command of the Third Sub-district of Minnesota, with headquarters at Fort Abercrombie, in Dakota Territory. In January, 1866, he commanded a corps of cavalry and artillery that was sent against the hostile Sioux Indians. A deep snow covered the ground at the time, with the thermometer from 30° to 45° below zero. Although the command suffered severely from frost, the expedition was a success, and proved the practicability of a winter campaign. The Doctor (now Brigadier-General) was mustered out of service July 16, 1866. He at once returned to his home at Hastings, and resumed his practice, in which he has been fully occupied ever since. In April, 1872, he was elected Mayor of Hastings, but after one year's service declined a re-election. In 1869-70, he was an active associate of Dr. Willey and others in organizing the Minnesota State Medical Society, and has been honored with nearly all the offices within its gift. He has twice represented the Society in the American Medical Association, one of the occasions being the meeting at San Francisco, in 1871. He is also a member of the Dakota County Medical Society, the Minnesota State Medical Society, and honorary member of the California State Medical Society. Dr. A. lost his first wife in October, 1858, by whom he had two children, a son and a daughter. In November, 1873, he was united in marriage to Mary

Sophia Pettybone, of Vermillion, Minn. He is a man of great and untiring energy and unswerving devotion to his profession, and, notwithstanding all he has suffered, is in the enjoyment of reasonable health, and gives promise of a long life of usefulness in the profession.

ADRIAN, JAMES A., M. D., of Logansport, Ind., was born at Ogdensburgh, St. Lawrence Co., N. Y., January 12, 1829. His parents removed to the city of Pittsburgh, Pa., when the subject of this sketch was but three years of age, and where they both shortly after died. His childhood was passed with but few educational advantages, so that when he had attained the age of eleven years he was unable to read or write. Removing to the town of Roscoe, Coshocton Co., O., by an arrangement of working morning and evening, he obtained schooling, and rapidly acquired the rudiments of a good English education. In time he became competent to instruct, and was appointed teacher at a village school for one year, and at the same time prosecuted his own studies. With the scanty means there obtained, he went to a high school at Oxford, Pa. where he prepared for entering the Pennsylvania College at Gettysburg, Pa., but from which institution he was obliged to retire on account of poor health, and at the suggestion of friends went South. In October, 1845, he sailed from Baltimore for Mobile, Ala., where he obtained an engagement as a tutor in a private family for one year. He was induced to accept an engagement as tutor for another year, during which time he had access to Professor J.

C. Nott's fine library. Returning to Roscoe, O., he commenced the study of medicine with Dr. M. Johnson of that place ; attended his first course of lectures at the Starling Medical College, Columbus, O., 1848-49, and the next year commenced to practice in Crawford Co., O., where he continued to reside until the spring of 1851, when he removed to Lewisburg, Cass Co., Ind. In 1853-54, he attended a course of lectures at the Medical College at Cleveland, O., where he graduated, and returned to his practice in Lewisburg, where he was soon very actively engaged in professional duties. In 1866, he went to Bellevue Medical College, New York, and attended a course of lectures, from which institution he received the degree of M. D. Again, in 1868-69, he returned to New York, and made a special course of study on the diseases of the eye and ear. For a number of years the Doctor has resided in the city of Logansport, and enjoys to the fullest extent the confidence and esteem of both the profession and the public. In 1873, he assisted in organizing the Cass County Medical Society, and was elected its first President. He read before the society a paper on Cholera and another on Spinal Meningitis, which were well considered and attracted much attention from his professional brethren. In 1871, he was a Delegate from the Indiana State Medical Society to the American Medical Association, which met at San Francisco, Cal. He is a member of the Indiana State Medical Society, of the Cass County Medical Society, and of the American Medical Association, and was elected an honorary member of the California State Medical

Society. In 1875, he was a Delegate from the American Medical Association to the International Medical Congress, which assembled at Brussels, Belgium, before which he read a paper and took an active part in the discussions. Dr. Adrian is a good public speaker. He was a personal friend and a political admirer of Stephen A. Douglas, and made telling campaign speeches for him in 1860. He served as one of the Tilden and Hendricks electors in 1876, and during the campaign attracted attention by his fine oratorial and argumentative powers. At the age of twenty-one he became a Mason, and has been honored with many official positions, and is now one of the officers of the Grand Lodge of the State. From his well-known reputation as a speaker, he is frequently called upon to deliver public addresses, and on his return from Europe his friends in Logansport gave him a public welcome, Judge Dykeman making the address in behalf of the citizens. The Doctor responded in the happiest manner, giving a full and most interesting account of his travels, and graphically describing such places and matters as had particularly interested him on his trip to the old world.

AGARD, AURELIUS HOMER, M. D., formerly of Sandusky, Ohio, but now of Oakland, Cal., was born at Wadsworth, Medina Co., O., October 10, 1822. His parents were of New England Puritan stock and pioneers to Ohio. He received a good preparatory education at John McGregor's Academy, and also attended the Western Star Seminary, where he acquired a fair knowledge of the classics. His medical

studies were commenced under Dr. Alexander Fisher, who in 1846 practiced at Western Star, Summit Co., Ohio. Afterwards he attended two courses of lectures at the Cleveland Medical College, and graduated, after another course, at the Jefferson Medical College, Philadelphia, in 1849. In June of the same year he commenced to practice at Western Star in partnership with his preceptor. In 1850 he bought out Dr. Fisher, and continued to practice till December, 1856, when he removed to Sandusky City, where he continued in the active duties of his profession until 1875. This year he removed to California, and on January 1, 1876, opened an office in the city of Oakland, where he now enjoys a fair professional business. In 1856 he reported a case of diffused aneurism of the femoral artery, operated on by Dr. Fisher, which is published in the *American Journal of the Medical Sciences*, for April of that year. He has also written a few articles on medical subjects for the current medical journals. Transactions of State Societies where he has been a member have also received contributions from his pen. A recent article in the *Pacific Medical Journal* on "Vaccine Lymph, Jennerian or Bovine" is a most excellent review of this subject. He is a member of the Erie County (Ohio) Medical Society, and was its Vice-President and acting President when he left Sandusky City; was also one of the Vice-Presidents of the Ohio State Medical Society, and a member of the North-Western Medical Society of Ohio. He is a member, and at present Vice-President of the Alameda County Medical Society, and a member of the California State Medical Society, and a member of the American

Medical Association, and he attended the meeting in the city of San Francisco, 1871. In 1849, the Doctor was united in marriage to Hattie F. Cole, oldest daughter of Dr. Joseph Cole, for forty years an active practitioner of Akron, Ohio. She died in 1853, leaving one child, Hattie L., who accompanied her father to California in 1871. In June, 1856, he married May R. More, of Sharon, Medina Co., Ohio, by whom he has had four children—two sons and two daughters. A conclusive evidence that the Doctor enjoyed his trip to California is that he has since that time taken up his residence in that State.

AMES, ALBERT ALONZO, M. D., of Minneapolis, Minn., was born at Amesville, Boone Co., Ill., Jan 18, 1842. He is the son of the late Dr. Alfred E. and Martha (Pratt) Ames, of Minneapolis, received a good English education, and then read medicine with his father and with Dr. Daniel Brainard, and graduated in medicine at the Rush Medical College, Chicago, Ill., in 1862. In August, after obtaining his degree, he was appointed Assistant Surgeon of the Seventh Minnesota Infantry; was promoted to Surgeon in 1864, and served to the close of the war. Returning to Minneapolis, he engaged in practice, and was elected to the Minnesota Legislature in 1866-67. In 1868 he went to California, and from there to Portland, Ore., and thence to San Diego, Cal. For a brief period he engaged in the newspaper business in San Francisco, and was for a time Managing Editor of the *Alta*. Returning to Minnesota, he became a resident of Minneapolis, and formed a partnership in practice with Dr. A. H. Salisbury,

and was in 1876-77 Mayor of the city. He is a member of the Minnesota State Medical Society, and was a Delegate from it to the American Medical Association at San Francisco, in 1871, and is an honorary member of the California State Medical Society. He is one of the incorporators of the "Minneapolis School of Medicine," the faculty of which has not yet been fully organized. The doctor is married and has three children.

AMES, ALFRED ELISHA, M. D., of Minneapolis, Minn., was born in Colchester, Vt., December 14, 1814, and died of a cancerous disease at his home in Minneapolis, September 23, 1874. At the age of seventeen years he was taken to Orwell, Ashtabula Co., Ohio. His preliminary and academic education was obtained in his native place and in his new home in Ohio. When sufficiently advanced he became a teacher, during the winter, in the common or public schools. In September, 1836, he married Martha Pratt, of Geneva, Ohio, who with four sons survive him. Two of the Doctor's sons are now practicing physicians. In October, 1836, he removed with his bride to the then recently laid out City of Chicago, when its population was but about three thousand. The following year he settled on a claim at Bloiden, Ill., but a few years after removed to Vandalia, where he served as Deputy Secretary of State and as Private Secretary of Governor Thomas Curtin. At the time, the capital was removed to Springfield, he removed thither, and acted as Clerk of the House of Representatives for some years. Even prior to this he had thought much of applying himself to the study

of medicine, and had in a quiet way made some progress in its preliminary studies. In 1840 he attended his first course of lectures at the Rush Medical College, where he eventually graduated in 1845. His name is borne upon the roll of the first class of graduates from this now well established institution. From 1840 to 1851 he resided at Belvidere and Roscoe, Ill. From these districts he served twice in each as a member of the Legislature, and was also Judge of the Probate Court, and Postmaster at Roscoe. In 1851 he emigrated to Minnesota, and took up his residence at the present site of the city of Minneapolis, where he formed a copartnership in practice with Dr. J. H. Murphy. The Doctor soon acquired a good business, and was fully employed up to the time of his death. In 1861-62 he delivered a course of lectures on anatomy and hygiene to the class at the Minneapolis High School. He made his demonstration from the cadaver before the class. For many years he was President of the Hennepin County Medical Society, and was exceedingly popular with his brethren as well as with the public. He was a member of the State Medical Society, and of the American Medical Association; was President of the Alumni Association of Rush Medical College, and honorary member of the California State Medical Society. Besides these he belonged to a number of benevolent societies, among them the Masons and Knights of Pythias. He was a close observer and kept notes of much of his practice, some of which have been published in the medical journals. He was a good public speaker and a forcible writer. It is understood that he was in the habit of

keeping notes of all his important cases and has left valuable records of his large obstetric practice. He was a man of pleasant and genial manners, well informed and quite a good conversationalist. We were occupants of the same car from San Francisco to Omaha, on our return from California, and the whole company was charmed with the intelligence and genial pleasant manners of the Doctor.

ARMSBY, JAMES H., M. D., of Albany, N. Y., born in the town of Sutton, Worcester Co., Mass., December 31, 1809, died suddenly of congestion of the lungs complicated with angina pectoris, at his residence, in Albany, December 3, 1875. He was the only son among six children. His boyhood was passed on his father's farm and in attending the common schools of the neighborhood, where he acquired his preliminary education, after which he spent some years at the Worcester and Monson Academies. Being of a studious disposition, he made more than ordinarily rapid progress. He had free use of the public library in his native town, of which he was one of the officers and founders. But a few years since, retaining a pleasant recollection of the advantages he had derived from this library, he presented it with several hundred volumes from his own collection. In 1830, he commenced the study of medicine in Albany with his brother-in-law, Dr. Alden March, who was then engaged in active practice, and at the same time a lecturer in the Academy of Medicine, at Castleton, Vt. While studying medicine he also perfected himself in a knowledge of the classics.

The Doctor was a laborious and enthusiastic student, and rapidly acquired an accurate knowledge of anatomy and physiology, making many neat dissections and injections of the soft tissues. His genius and proficiency in this direction led to the founding of the Anatomical Museum at Albany. These qualities and his ability as an anatomist soon pointed him out as the Chief Assistant to Professor March, whose place he occasionally occupied in the lecture-room. In 1832, he was appointed Resident Physician in the Cholera Hospital in Albany, which position he filled with ability, making many post mortems of cholera patients. He graduated in medicine at Castleton, Vt., in 1833, and was chosen valedictorian to the class. His thesis was read by direction of the faculty at the commencement, as an expression of their appreciation of its worth. He returned the next lecture-term as Professor of Anatomy and Physiology in this college, and continued to lecture for six years in these branches. One of his first public enterprises in Albany was his effort to establish a college in that city. In 1833, in co-operation with his preceptor, Dr. March, he opened a private medical school, known as the March and Armsby School of Anatomy and Surgery, which was successfully conducted until superseded, in 1838, by the organization of the Albany Medical College, in which he was appointed to the Chair of Anatomy and Physiology and Dean of the Faculty. While connected with the Vermont school, he gave more than forty lectures in Troy, N. Y., alone, which were attended by the physicians and leading citizens of the city.

His popularity and proficiency at this time were especially manifested by the fact of his having been solicited to deliver lectures in Albany, Utica, Schenectady, and other cities, which he occasionally did for some years, and until his professional duties become so laborious and exacting as to demand all his time. His lectures were, I believe, the first illustrated by actual dissections of the human body ever delivered before a promiscuous audience in our country. This course was really the beginning of the Albany Medical College, and did much to overcome prejudices against dissections of the human body. Through his efforts \$10,000 was raised and the medical institution fully organized. In 1839 he visited Europe to study the medical institutions of the Old World, and he brought with him on his return experience, and a complete outfit for the lecture-room. He was a great encourager of young artists, and did much to secure the founding of the Albany Academy of Arts. In 1841 he was united in marriage to Anna L. Hawley, who died in 1846, leaving him a son and a daughter. The son is now an honored member of our profession, but the daughter died in infancy. In 1845 he made his second visit to Europe for the further purpose of improvement, and acquainting himself with medical institutions and appliances. As early as 1830 the Doctor had advocated the establishment of a hospital in Albany. He continued his efforts to forward this project, which were eventually crowned with success in 1848. This was the first hospital in Albany having amphitheatre and facilities for clinical instruction. This and the college were his pet institutions, and re-

ceived from him the most earnest and untiring efforts for their usefulness. He was also an early advocate for the establishment of a university of learning in Albany, which he had the satisfaction of seeing fully organized in 1852, when a law school and an observatory were founded. These were in 1873, by an act of the Legislature, incorporated with the Union College of Schenectady as departments of Union University. In 1861 he was appointed United States Consul at Naples, Italy, and repaired to his post of duty at once. On his return to Albany he resumed his busy round of practice, and his former position in the college as teacher. During the late war he was appointed by the United States Government Surgeon in Charge of the Ira Harris United States Military Hospital, its inmates often numbering two thousand. He performed many capital operations and made numerous casts and photographs of cases, as his contribution to the Medical and Surgical History of the War can testify. On the demise of Professor March, in 1869, he was appointed Professor of Surgery in the college, a position which he continued to fill most ably and acceptably to the close of his life. On the death of Dr. James McNaughton, which occurred June 11, 1874, he was elected President of the Faculty. In 1852 he was married to his second wife, Sarah Winne, who survives him.

Dr. A. received honorary degrees from quite a number of institutions. That of A. M. was conferred on him by the Rochester University, and by Rutgers College, New Jersey, in 1841. He was elected to honorary membership in the Natural History Society

of Yale College and in the Natural History Society of New Orleans. He was a member of the Albany City and County Medical Society, of the New York State Medical Society, of the American Medical Association, and an honorary member of the California State Medical Society. He was President of the Staff of the hospital, Chief Surgeon and Trustee of the Dudley Observatory, and trustee of the Female Academy and of Union College. He devised a new and original instrument (for the radical cure of hernia), which involved principles not at that time recognized by the profession. The Doctor had traveled much and was a close observer of men and things, and his trip to California was, therefore, to him and to those in his company one of great pleasure. He was quite magnetic in his manner and agreeable in conversation, always delighting those who enjoyed acquaintance with him. By a long life devoted to medical science and public good, he has left an imperishable monument in the institution he assisted in founding in Albany and the lustre he has added to the profession. As a teacher and a surgeon he stood in the very front rank of American physicians. He had a most thorough familiarity with the anatomy of the human body, and his dexterity, courage, and coolness in an operation were perfect. Although his pathological specimens fill a cabinet, no list of his operations has been made. He was no less happy and successful as a lecturer before the medical class than in presence of a public assembly. But when it is remembered that he delivered over fifty courses of lectures, this is not to be wondered at. The Doctor has written but little, though

he was a ready and perspicuous author. The transactions of the New York State Medical Society, and the current journals contain his additions to medical literature. It is to be regretted that he did not write more. Albany has been favored with many eminent medical men, but none have lived or died in that city who have done so much for medicine or whose fame will prove more enduring than that of Dr. ARMSBY.

ASDALE, WILLIAM JAMES, M. D., of Pittsburgh, Pa., was born in Clinton, Allegheny Co., Pa., August 25, 1842. He is the eldest of five children of Alexander and Nancy (Connell) Asdale, natives of Londonderry Co., Ireland. His father died in 1860; his mother is living, and resides with him.

Dr. Asdale attended the public schools until sixteen years of age; he then began teaching, and for five years taught, during the winter-term of each year, in the schools of Independence and Hanover, Beaver Co., Pa.; meanwhile pursuing his studies, a pupil, during the intervals, at Mansfield Academy, near Pittsburgh. Having obtained a good preliminary education, in 1860, he commenced the study of medicine with Dr. John Pollock, of Clinton. Subsequently, removing to Pittsburgh, he entered the office of Dr. A. M. Pollock, of that city, under whose tuition he enjoyed the advantages of being Resident Student in Mercy Hospital, serving in that institution as *interne* during the years 1863 and 1864. He attended medical lectures at the University of Michigan in 1864-65, and afterward at the Rush Medical College, in Chicago, Ills., where he graduated in 1866.

In April of the latter year he commenced practice in Pittsburgh, where he has continued to reside, and has acquired a good and remunerative patronage. Elected in 1872 as one of the Staff Physicians of the Western Pennsylvania Hospital, he has served regularly ever since. Formerly associated with the Church Guild Dispensary of Pittsburgh (now extinct), he has been, since its organization, one of the physicians of the Pittsburgh Free Dispensary, and is at present one of the board of managers of this institution as well as one of the consulting staff. His politics are of the strongly-marked Democratic order. Notwithstanding, he was twice the successful candidate in a district where the opposition were usually largely in majority, he representing the Twelfth Ward, Pittsburgh, in Select Council of that city in the years 1871 and 1872. He has been a member of the O'Hara School Board of Directors from 1871 to the present time. In 1875, he was elected a member of the Pittsburgh Board of Health, and is its present Secretary. To his talents and industry the increased efficiency of this department in the city of Pittsburgh is largely due. He has constantly and assiduously labored in the interests of his profession and for the public welfare, and is recognized in the community where he resides as one of the most active in endeavoring to secure enactments such as shall best serve to promote the standard of medical education and protect the public against the evils of ignorance and incompetency. His efforts to secure the establishment of sanitary survey, and registration of vital statistics in his state, deserve special mention, as he was one of the earliest to recommend such ac-

tion and urge its importance upon the Legislature and the people, and nothing daunted by repeated failures, still perseveres. The Doctor has made a number of interesting contributions to medical literature, presented before the various societies of which he is a member; among these, in 1871, was a paper on "Embolism of the Popliteal Artery," read before the Allegheny County Medical Society; also, in 1874, a paper on "Leucocythæmia," and one on "Peri-typhlitis." In 1875 he contributed to the Mott Medical Society a paper on "Puerperal Fever," and another on "Fever and its Treatment;" in 1876, he presented to the same society a paper on "Conservative Medicine;" also, in the same year one on "Scarlet Fever," read before the Pittsburgh Academy of Medicine, and one on "Vaccination *versus* Small-Pox;" the latter was published by order of the Board of Health. He is an active and influential member of the Allegheny Co., Medical Society, and was its Vice-President in 1875; also a member of the Mott Medical Society, of Pittsburgh; member of the Pittsburgh Academy of Medicine and School of Anatomy, being its Vice-President in 1876, and its present Corresponding Secretary; member of the Society of Natural Sciences of Western Pennsylvania; member of the State Medical Society of Pennsylvania; member of the American Public Health Association; member of the American Medical Association, and an honorary member of the California State Medical Society. He was married October 12th, 1876, to Miss Rachel, daughter of Joseph Wallace, of Beaver county, Pennsylvania.

ATKINSON, WILLIAM BIDDLE, M. D., of Philadelphia, Pa., was born at Haverford, Delaware Co., Pa., June 21, 1832. He is the son of Isaac S. Atkinson, of New Jersey, and Mary (Biddle) Atkinson, of Pennsylvania. His education was obtained at the Philadelphia public schools, and the Philadelphia Central High School, from the latter he received the degree A. B., in 1850, and that of A. M., in 1855. He commenced the study of Medicine in 1850, and attended three full courses of lectures at the Jefferson Medical College, where he graduated M. D., in 1853.

While studying medicine he also applied himself to the study and acquired a knowledge of French and German languages. In March, 1853, he opened an office at 215 Spruce street, Philadelphia, but which in 1867 he removed to his present residence, 1400 Pine street. By close attention to business he has acquired a good remunerative practice, and has at the same time done a very large amount of labor as secretary of various medical organizations and of editorial work for journals and other medical publications. He performed the duties of editor in the department assigned to obstetrics and the diseases of women and children, in the *Medico-Chirurgical Review*, published in Philadelphia, by S. D. Gross, from 1858 to 1860, and was at one time co-editor of the *Medical and Surgical Reporter*.

On the change of regulations of the American Medical Association, in 1864, providing for a Permanent Secretary, Dr. Atkinson was elected to that office, which he still fills, and upon him falls the chief labor of superintending the editing of its annual volume of Transactions.

The Doctor is extensively and favorably known to the profession throughout the United States for his devotion to its interests, and is personally acquainted with the leading medical men, from his position as Permanent Secretary of the American Medical Association, and has made a favorable impression through his contributions to medical literature. His work entitled "Hints in Obstetric Procedure," has had a deservedly large sale. In 1875 he edited the *Philadelphia Medical Register and Directory*. He has now in preparation a biographical dictionary of the leading medical men of the United States, which doubtless will have an extensive circulation, and prove a valuable work to the profession. In March, 1877, he was appointed to fill the chair of Diseases of Children in the Jefferson Medical College. He is a member of the Northern Medical Association, and has been its Secretary and Vice-President and its President in 1868. An active member of the Philadelphia County and City Medical Society, from 1857 to 1869 he was its Secretary; also served as Vice-President and was its President in 1873. He was elected Permanent Secretary to the Medical Society of the State of Pennsylvania, in 1863, a position which he still holds. The Philadelphia Obstetrical Society, Corresponding member of the Gynæcological Society of Boston, Honorary Member of the California State Medical Society, the Alumni Association of Jefferson Medical College, and one of its executive committee since its organization. In March, 1877, by appointment, he delivered the Annual Address before this body on "Medical Organizations and their Value," published by the associ-

ation. In 1874, by appointment, he delivered the Annual Address in Obstetrics before the Medical Society of the State of Pennsylvania, published in Transactions for that year, and also in pamphlet form. Since 1863, he has been Physician to the Department of Obstetrics and Diseases of Women and Children in the Howard Hospital of Philadelphia.

His first course of lectures on Obstetrics was delivered in 1858. In 1860, he was appointed assistant to the Chair of Obstetrics and the Diseases of Women and Children in Pennsylvania Medical College and Chief of the Gynæcological Clinic, which he held till this school was closed in 1861.

In addition to his lectures at Jefferson Medical College, he gives instruction to private classes on obstetrics.

In 1857 DR. ATKINSON was married to Jennie Reed Patterson. She died April 15, 1871, leaving an infant son, William Patterson, aged two years.

His visit to California was made under very painful circumstances—owing to the recent death of his wife. While there he visited the Yosemite Valley, the Geysers, and other places of interest on the Pacific Slope.

His contributions to literature in addition to those mentioned, have been reports and papers, among which are: "Evidences of Life in the Newly Delivered Child" (*Medical and Surgical Reporter*, 1873), re-published in full in the *Dublin Hospital Gazette* and in the *Obstetrical Journal of Great Britain*, American reprint; "Chloral in Obstetrics" (*Medical and Surgical Reporter*, 1875), and other articles devoted to his specialty.

ATLEE, WASHINGTON L., M. D., of Philadelphia, Pa., was born at Lancaster, Pa., February 22, 1808. He was the youngest of six children of William Pitt Atlee, Esq., of Lancaster. His paternal grandfather, Hon. William Augustus Atlee, was an active Whig during the Revolutionary war, and one of the judges of the Supreme Court of Pennsylvania from 1777 until his death in 1793. His maternal grandfather, Maj. John Light, was an officer in the Revolutionary Army. At the age of seven his father died, after which he was under the care of his grandparents. At fourteen years of age, after completing the ordinary routine of English studies afforded by the schools of Lancaster, he was placed in a dry goods and grocery store. Becoming dissatisfied at the end of fifteen months, he left that and immediately engaged as a medical student under the preceptorship and in the family of his oldest brother Dr. John Light Atlee, of Lancaster, who is still (January, 1878,) living and in active practice. Feeling the great need of a classical education, he devoted a large portion of his time during the first two years to the study of languages under private tutors, and also engaged in the study of the natural sciences, and philosophy. During the last three years of his medical pupilage, he spent much of his time in the Lancaster County Hospital, and in practice among the poor of the city, and as an evidence of the extent of his clinical advantages it may be stated that before he had finished his medical education he had attended forty cases of obstetrics. He was very fond of practical anatomy, and gave much

attention to the dissection of animal and human bodies, the latter being always procurable at this hospital. He attended two full courses of lectures at the Jefferson Medical College, in the winter of 1826-27, and 1828-29, and graduated in the spring of 1829. His thesis was on "Parotitis Gangrenosa," a title of his own, and a subject furnished in his own experience. While in Philadelphia attending the sessions of the college he was by invitation a private pupil of George McClellan, M. D., Professor of Surgery. During the summer of 1827-28 he actively pursued the practical study of botany, and was a correspondent of Dr. William P. C. Barton, then Professor of Materia Medica and Botany in Jefferson Medical College. He collected about four hundred specimens of Lancaster county plants into the form of an herbarium, accompanied with a written description of each plant. His collection was subsequently presented to the Linnean Society of Pennsylvania College at Gettysburg, Pa. Soon after graduation he located in Mount Joy, a small village in his native county, twelve miles from Lancaster. While here he originated a temperance society, and a lyceum; delivered a lecture on temperance, which was published; also lectures on the great display of falling stars, November, 1833; a course of lectures on botany, and read several miscellaneous papers before the lyceum. April 15, 1830, he was married to Miss Ann Eliza Hoff, daughter of John Hoff, Esq., of Lancaster. The issue of this marriage was ten children, the youngest having been born in the fall of 1844. Six of them survive—Kate, wife of David Burpee, M. D.; Mary, wife of Thomas M.

Drysdale, M. D.; Eliza, wife of John Sheaff, Esq.; Margaret H. Atlee; Washington L. Atlee, M. D.; and Charles L. Atlee, Esq.

In the autumn of 1834 he removed to Lancaster, his native place. He was soon elected to the staff of Lancaster County Hospital, and in 1837 was appointed Treasurer to the Commissioners of Lancaster County. For several successive years he delivered regular courses of lectures on chemistry to private classes, and one public course to the Mechanics' Institute of Lancaster. He was also active in originating an association called "The Lancaster Conservatory of Arts and Sciences," before which he gave a course of lectures on hygiene, besides other scientific and miscellaneous lectures. At the time of the execution of the murderer Moselman, he made out a programme of experiments to be performed upon his body, which was carried out with eminent success. He also aided actively in establishing the Lancaster County Medical Society. Having received an invitation in 1844 to fill the chair of Medical Chemistry in the Medical Department of Pennsylvania College at Philadelphia, he made a temporary arrangement to lecture during the ensuing session. Afterwards accepting the position permanently, he removed his family to Philadelphia in the fall of 1845, and continued his connection with the College until the spring of 1852. During this period the practice of his profession grew so much upon him that he found the joint labors too great. He therefore resigned his professorship, and has ever since devoted himself actively and solely to the

practice of medicine and surgery. In 1853, at a meeting of the American Medical Association, held in the city of New York, he competed for one of the prizes. Twelve essays were presented to the Committee on Volunteer Communications contesting for this honor, and his paper was one of two to which it was awarded. He assisted in the organization of the Philadelphia County Medical Society, of the Medical Society of the State of Pennsylvania, and of the American Medical Association, and still retains his membership in each. He has always been a general practitioner, but latterly has been forced to relinquish obstetrics, and is fully occupied in the treatment of the diseases of females. He is perhaps best known to the profession for his operations of ovariectomy. At this time (January, 1878) it is believed that the number of his operations exceeds that of any other surgeon in this country, and with one exception in the world. They amount to three hundred and seventy-eight. The following schedule embraces a list of most of his papers and lectures:

- "On the Ergot of Wheat," published in *Columbia Spy*, 1830.
- "On certain Cavities in Quartz," *American Journal of Science and Arts*, 1837.
- "Case of Hydrophobia," *American Medical Intelligencer*, 1839; also in the *Transactions of American Medical Association*, 1856; also in pamphlet form, with comments on Stoy's Cure. See pamphlet.
- "Case of Small-pox, contagion apparently conveyed by letter." *American Journal Medical Science*, 1840.
- "Report on a series of experiments (instituted by Washington L. Atlee, M. D.), made by the Medical Faculty of Lancaster, Pa., on the body of Henry Cobler Moselman, executed in the jail yard of Lancaster county, Pa., on the 20th of December, 1839."

- "Meteorological Report" for 1839, 1840, 1841, 1842, 1843.
- "A review of Sherwood's Theory of Terrestrial Magnetism." Public Ledger, of Philadelphia, 1841.
- "A case of Congenital Tumor composed of many cysts." American Journal of Medical Science, 1843.
- "A case of Mollusum associated with Fibro-cellular encysted Tumor and encephaloid disease." American Journal Medical Science, 1843.
- "A case of Ovariectomy." American Journal of Medical Science, 1844.
- "Two cases of Perineal operation on the Urethra; in one case, to relieve traumatic stricture; and in the other to restore the cystic, portion of the canal, which had been completely obliterated." *Ibid.*, 1844.
- "A case of successful extirpation of a fibroid Tumor of the Uterus by the large peritoneal section." *Ibid.*, 1845.
- "A tabular synopsis of one hundred and one operations of ovariectomy." *Ibid.*, 1845.
- "On the cause of Malaria." The Medical Examiner and Record of Medical Science, 1846.
- "Two cases of protracted Gestation." American Journal of Medical Medical Science, 1846.
- "Dr. W. L. Atlee vs. Lancaster County." (A suit brought to test the right to compensation for making a post-mortem examination at the request of the coroner.) *Ibid.*, 1846.
- "On the Philosophy of Storms." 15 Nos. Literary Recorder and Journal of the Linnæan Association of Pennsylvania College, 1846-47.
- "Excision of the Cervix Uteri for Carcinomatous Disease." American Journal Medical Science, 1848.
- "Ovarian Dropsy cured by the long abdominal incision in 1701." *Ibid.*, 1849.
- "Three cases of Ovariectomy." *Ibid.*, 1849, 1850.
- "Analysis of one hundred and seventy-nine cases of Ovariectomy." *Ibid.*, 1850.
- "Cases of Erysipelas following vaccination." Transactions of the College of Physicians, Philadelphia, 1850.
- "Improvement in the operation for excision of the upper jaw-bone." Transactions American Medical Association, 1850.
- "On Anæsthetic Agents." *Ibid.*, 1850.

- "A table of all the known operations of Ovariectomy from 1701 to 1851." Comprising two hundred and twenty-two cases, and giving a synoptical history of each case.
- "A Memoir of William R. Grant, M. D., Prof. of Anatomy in the Medical Department of Pennsylvania College, with a notice of his theory of Foetal Circulation." Transactions of College of Physicians, Philadelphia, 1853. Also pamphlet.
- "On the Treatment of certain Fibroid Tumors of the Uterus, heretofore considered beyond the resources of art." (Being the treatise for which the prize for the year 1853 was awarded by the American Medical Association.) Transactions American Medical Association, 1853. Also in pamphlet.
- "Cases of irritation of the Bladder, arising from various causes, in which Hydrangea Arborescens was employed as a remedy" (and supplement). New Jersey Medical Reporter, Vol. vii.
- "Case of large pleuritic effusion cured by Paracentesis Thoracis and subsequent injections of Iodine into the cavity of the Pleura." American Journal of Medical Science, 1858.
- "On Placenta Praevia." The Medical and Surgical Reporter, Philadelphia, 1858.
- "A case of Vesico Vaginal Fistula." American Journal of Medical Science, 1860. Also pamphlet.
- "On Hernia." The Medical and Surgical Reporter. Philadelphia, 1860.
- "A case of Acute puerperal Tetanus." *Ibid.*, 1860.
- "A new cause of Vesico Vaginal Fistula." Reply to Prof. Brickell. Maryland and Virginia Medical Journal, 1861.
- "A case of Quadruple Birth." Medical and Surgical Reporter, Philadelphia, 1860.
- "Arsenic in Cancer." Transactions American Medical Association, 1868.
- "Correspondence with Prof. White in relation to a Uterine Fibroid." Buffalo Medical and Surgical Journal, 1869.
- "Numerous cases of Ovariectomy," published in the American Journal of Medical Science, and in the Medical Times of Philadelphia.
- "A new clamp in Ovariectomy." American Journal of Medical Science, 1871.
- "The Uterine Dilator." *Ibid.*, 1871.
- "The use of the speculum in the diagnosis and treatment of

- diseases of the Uterus," being the address in obstetrics before the Medical Society of the State of Pennsylvania. Transactions of Medical Association of Pennsylvania for 1872.
- "General and differential diagnosis of Ovarian Tumors with special reference to the operation of Ovariectomy." 1 Vol. Published by J. B. Lippincott & Co. Philadelphia, 1873.
- "A Retrospect of the struggles and triumphs of Ovariectomy in Philadelphia," being the annual address before the Philadelphia County Medical Society, by the retiring President, in 1875. Also pamphlet.
- "Old Physic and Young Physic." Being the annual address before the Medical Society of the State of Pennsylvania, by the President in 1875. Transactions Medical Society of the State of Pennsylvania, 1875. Also pamphlet.
- "A female with double organs of generation." Transactions of Medical Society of Pennsylvania, 1873. Also pamphlet.
- "Reminiscences of the earliest days of Jefferson Medical College. An address delivered before the Alumni Association of the Jefferson Medical College, of Philadelphia, at its third anniversary, March 11th, 1873. Also pamphlet.

LECTURES, ETC.

- A paper on "The Treatment of Fibroids of the Uterus." Read before the "International Medical Congress," September, 1876. Transactions of International Medical Congress, Philadelphia.
- A paper on "Sarcoma of the Ovaries." Read before "The American Gynecological Society," Boston, 1877. Transactions of American Gynecological Society.
- "An address on Temperance, before the Mount Joy Temperance Society," 1831, published by the society.
- "An address on Temperance before the Lancaster City Temperance Society," 1841. Published by the society.
- "On the relation of Chemistry to Medicine." Introductory address before the Medical Class of Pennsylvania Medical College, Philadelphia, 1844. Pamphlet.
- "On the chemical relations of the human body with surrounding objects." Introductory Address before class of 1845. Published by the class. Pamphlet.
- "Rules for the formation of a good physician." Valedictory before the graduates of Jefferson Medical College, 1847. Pamphlet.

- "Hints for the guidance and benefit of the Medical Student," Introductory address before the class of 1850. Pamphlet.
- "Physical Education the only solid foundation of moral and intellectual culture and development." An address before the Linnaean Association of Pennsylvania College, Gettysburg, Pa., 1851. Pamphlet.
- "Correction of the erroneous statements of Henry H. Smith, M. D., published in the Medical Examiner, January, 1855, in relation to a case of Gastrotomy, which occurred in the practice of W. L. Atlee, M. D." Pamphlet.
- "A course of Lectures on Botany," at Mount Joy, 1831.
- "Two Lectures on Falling Stars of 1833," at Mount Joy.
- "Three courses of Lectures on Chemistry," to private classes at Lancaster, 1835, 1836, 1837.
- "A course of Lectures on Chemistry," before the Mechanics' Institute of Lancaster, 1837.
- "A Lecture on Aerolites," before the Lyceum of the State of Pennsylvania in the session at Lancaster.
- "A course of Lectures on Hygiene," before the Lancaster Conservatory of Arts and Sciences, Lancaster, 1840.
- "An experimental course of Lectures on the materials used for Illumination," before the citizens of Lancaster about forming the Lancaster City Gas Company, 1840.
- "Eight courses of Lectures on Medical Chemistry," in Medical Department of Pennsylvania College, Philadelphia, from 1844-'45 to 1851-'52 inclusive.
- "A Lecture on Placenta Praevia," before Philadelphia county Medical Society, 1858.
- "Three Lectures on the Diagnosis of Ovarian Tumors," before the Philadelphia county Medical Society, 1859, 1860, 1861.

BARNETT, C. V., M. D., Cosackie, Green Co., N. Y.

BARNUM BOLIVAR, M. D., of Schoolcraft, Mich., was born near Auburn, Cayuga Co., N. Y., April 22, 1826. His parents, with their children, removed in 1836, to Van Buren County, in the south-

western part of Michigan, and engaged in agriculture. Advantages for education were at that time very limited. The public schools were few and open only in winter months. The subject of this sketch was required during the summer to labor on the farm with his father. At the age of nineteen he had so far advanced in his education as to justify his teaching during the winter one of the public schools, which he continued to do for some years. In 1849 he began a systematic academic course at the Albion Seminary at Albion, Mich. He commenced the study of medicine in 1851, with Dr. Josiah Andrews, of Paw Paw, Mich., and after attending two courses of lectures at the Medical Department of Michigan University, graduated M. D. in 1854. In April of the same year he opened an office at Schoolcraft, and in a short time found his time fully employed in practice. On the breaking out of the late war between the States, he was commissioned Surgeon of the Twenty-fifth Regiment of Michigan Volunteer Infantry, and served to the close of the war. In July, 1873, he was appointed Surgeon of the Michigan Central Railroad Company, and changed his location to Jackson, where he also engaged in private practice with much encouragement. In 1875 he returned to Schoolcraft, his favorite place of residence, where he enjoys a large and responsible business. His experience as a surgeon brings to him much of that kind of practice in his section of the State. He operated for ovariectomy as early as March, 1859, perhaps the first time it was performed in Michigan. He used the metallic ligature in tying the anterior tibial artery in 1860. In all professional

matters he keeps himself fully abreast of the latest discoveries and improvements in medical and surgical practice. Dr. Barnum is a member of the St. Joseph Valley Medical Association, the Michigan State Medical Society, and has been pretty constant in his attendance at their meetings; also a member of the American Medical Association since 1856, and an honorary member of the California State Medical Society. The Doctor is united in marriage to Mary Lucy Reed. They have two children, both daughters, Lucy R. and Ada B. While in California, Dr. B. visited the various places of interest on the Pacific coast and stopped a day at Salt Lake City *en route*. He is a man who absorbs information rapidly, has correct ideas of men and things, and is most agreeable and entertaining in conversation.

BARTLETT, JOHN KNOWLTON, M. D., of Milwaukee, Wis., was born February 28, 1816, at Portsmouth, N. H. He is a descendant of Richard Bartlett, who came from England and settled in Newbury, Mass., in 1635. (The name in England was spelled *Barttelot*, and is so written by the present representative of the family, Col. Walter R. Barttelot, of Stopham, England, where the records in the church are complete from John Barttelot, who was born early in 1300. The family here, from the early colonial times, have furnished quite a number of able physicians and patriots. The subject of the present sketch prepared for college at Philips' Academy, Andover, Mass.; graduated at Yale College in 1838; studied medicine under the direction of Dr. Charles Hooker, and re-

ceived his medical degree from the New Haven Medical College, in 1841, at which time he was made the orator of his class. In the spring of the same year he settled in Milwaukee, which then contained 1,800 inhabitants, and has resided there until the present time, being now (with one exception) the oldest resident physician in the city. He is still in general practice, though for the past eight or ten years he has somewhat restricted his business, and given especial attention to diseases of women.

He has been a member of the American Medical Association since 1854, and was one of its Vice-Presidents in 1872. He has been President of the Milwaukee Medical Society for many years; a member of the State Medical Society, and its President in 1876. He is an honorary member of the California State Medical Society, and was a member and Vice-President of the International Medical Congress in 1876. He has published nothing except some articles in the Transactions of the State Medical Society and a few papers in medical journals. At the commencement of the late civil war he was appointed a Brigade Surgeon by the Governor of Wisconsin, but under the pressure brought to bear by his patients, was constrained to resign. He was married in 1838 to Mary E. Elliot, of New Haven, Conn., who died in December, 1874. They had one child, a daughter. In 1877 he was united in marriage to Harriet N. Keeler, of Milwaukee.

The Doctor is a man of superior education, refinement, and cultivated tastes; has twice visited Europe, and has traveled extensively through our own country. In medical organizations he is a most efficient worker

and faithful in attendance, and is always placed upon important committees, the duties of which he discharges with judgment, promptness and fidelity.

BELLOWS, HORATIO KNIGHT, M. D., of Norwich, N. Y., was born at New Berlin, Chenango Co., N. Y., November 5, 1823. His father, Daniel Bellows, was a physician in active practice and an influential citizen of Chenango Co. The subject of this sketch received a good academic education at the Hamilton Academy at Hamilton, N. Y., and at Gilbertsville Academy. His medical studies were pursued under his father, who often took his son with him to see interesting cases. After completing a careful course of reading he attended lectures at the Medical Department of the New York University—and graduated M. D. in 1847. The same year he opened an office and commenced to practice in Norwich, N. Y., where he still resides, having been actively engaged in a large and responsible general practice of medicine and surgery. He was united in marriage in August, 1852, to Margaret S. Bockee, by whom he had four daughters, three now living. His first wife having died, he married in November, 1875, Charlotte A. Bradner, by whom he has one child; the Doctor is a hard-working physician, and rarely relaxes from his arduous duties, seldom finds time to write out accounts of even interesting cases, his leisure hours being spent in careful study and research; yet the call of the poor and suffering is never unheeded, and many times where the Christian pastor could not gain admittance the Christian physician speaks words of comfort and cheers

the afflicted family. In 1871 he was sent as delegate from the New York State Medical Society to the meeting of the American Medical Association at San Francisco. He is a man of close and original observations, and was most interesting and agreeable to his companions. He has always taken an interest in medical organizations, and is a member, and was for six years President of the Chenango Co. Medical Society. He is also a member of the New York State Medical Society, the American Medical Association, and an honorary member of the California State Medical Society.

BIBB, GEORGE RICHARD, M. D., was born in Jacksonville, Ill., June 18, 1842; died of phthisis pulmonalis, in same place, June 18, 1874. He was the son of Richard Bibb, of Virginia, and Martha Todd Davis, of Kentucky, who removed to Illinois prior to the birth of the subject of this sketch. His childhood and youth, and nearly the whole of his life was spent in Jacksonville. He was a pupil of the Illinois College, where he received his academic education. He studied medicine and surgery with Dr. David Prince, of Jacksonville, and obtained his medical degree at the Rush Medical College, Chicago, in 1864. After graduating he was associated in practice for a time with Dr. Prince, his preceptor, and afterward with Dr. A. O. Gillman; most of the time he however had an office by himself. Early in the war he enlisted in Company B, Tenth Illinois Volunteers, and was promoted to a surgeoncy, remaining with his regiment during the entire term of service.

He was afterward commissioned by Governor Yates as Captain of Company C, in the One Hundred and Forty-fifth Regiment of Illinois Volunteers, and acquitted himself as a brave and efficient officer. In 1869 he was commissioned by Governor Palmer as one of the Trustees of the Illinois Hospital for the Insane, a position which he filled with ability, manifesting an intelligent and deep interest in the prosperity of the institution, until declining health compelled his resignation. Although but a young man, he had accomplished much. From early life he was an industrious student, and zealously pursued a widening range of study until but a short time before his death. Dr. Bibb was never married; his father dying when he was quite young, he seemed to accept it as a duty to become the guardian and protector of his widowed mother, two sisters, and a younger brother, who all confided in him. The practice of medicine and surgery was his chosen profession, and to it he was earnestly devoted, and acquired a rich fund of knowledge far beyond what could reasonably have been expected of one so young. But his talent, energy and skill all were forced to yield to that "fell destroyer," phthisis, which began to manifest itself very soon after he entered upon professional life. With the view of improving his health, and the hope of arresting the progress of the disease, he removed to California, taking up his abode in San Diego, where he remained but a short time, having, as he thought, improved so as to justify him in returning to his home in Illinois. The amelioration obtained, however, did not prove permanent, and the disease

soon showed manifest signs of fatal progress. He was then induced to try the climate of Colorado, but deriving no benefit from the change, he again returned to California, locating this time in the beautiful city of Oakland, where he expected to pursue his profession, and to make it his permanent home; but the disease showing no signs of arrest, he turned his footsteps again eastward, that he might once more look upon the faces of cherished friends, and die among his kindred. At the time of his death he was a member of the Illinois State Medical Society, the American Medical Association, and an honorary member of the California State Medical Society; also a useful and respected member of the Morgan County (Illinois) Medical Society—the county in which he was born and brought up. Of Dr. Bibb it can truly be said, that he was a “Christian gentleman” and a “Beloved Physician,” whose generous nature continually abounded in noble charities and acts of kindness, and love towards those whom misfortune and disease visited.

BLACK, JOHN, M. D., of Plattsmouth, Neb., was born at Whittingham, Northumberland Co., England, November 14, 1821. His parents emigrated to America in 1838, and settled in Knox County, Ohio, but removed to Missouri in 1852, where they died. The Doctor received a good academic education at the Fredericktown Select School. His medical studies were begun under the supervision of Dr. Lewis Dyer, of the same place, in 1843. In the spring of 1845 he removed to Cleveland, Ohio, where he continued his studies under the late

Professor H. A. Ackley. After attending the usual courses of lectures, he graduated at the Cleveland Medical College, in 1847. In April of the same year he commenced practice in Claridon, Marion County, Ohio. He removed to Maysville, Mo., in June, 1854, where he remained engaged in practice until April, 1863, when he removed to Nebraska Territory, where he resides at the present time. He is no longer engaged in active practice, but has been so successful in a business point of view, as to have turned broker. However, the Doctor retains an active interest in and love for the profession, and is a member of all the medical organizations of the State. He is a member of the Nebraska State Medical Society; was Vice-President in 1873, and President in 1875, and a Delegate from it to the meeting of the American Medical Association, which was held in San Francisco, Cal., in 1871. He was highly gratified with his trip to California and the hospitable manner in which the people of the Pacific Slope received their brethren from the Eastern States. He was likewise a Delegate to the American Medical Association in 1876, and to the International Medical Congress that convened in Philadelphia, in September of that year. Circumstances beyond his control prevented him from reaching Philadelphia in time to participate in the transactions of either meeting. The Doctor is a Delegate to the American Medical Association which is to convene in Buffalo, in June, 1878. He is married and has had seven children, six of whom are now living.

BROWN, BENJAMIN STANTON, M. D., of Bellefontaine, Ohio, was born at Brownsville, Pa., July 13,

1800; died in Bellefontaine, December 19, 1873. His parents were members of the Society of Friends, and removed to the vicinity of Mount Pleasant, Ohio, from North Carolina, in 1818, but subsequently to Logan Co., Ohio. The subject of this sketch was a first cousin to Hon. E. M. Stanton, the great War Secretary. He received a good English education, and though he never had collegiate advantages was a man of more than ordinary mental vigor and acquirements. After attaining his majority, poor health induced him to go South, where he spent a few years. On his return he commenced the study of medicine with Dr. Crew, of Zanesville. After attending lectures at the Medical College of Ohio, he received the degree of M. D. in 1828. He opened an office the same year in Bellefontaine, where he was actively engaged in practice for over thirty-five years. He was a man of very general information, sound judgment, and a good physician. He contributed a few articles of interest to medical periodicals. He was a member of the Logan County Medical Society, and also the Ohio State Medical Society, and its President in 1866; member of the American Medical Association since 1857, and an honorary member of the California State Medical Society. His wife accompanied him to California in 1871, and survives him; but has no children.

BRÜHL, GUSTAV, M. D., of Cincinnati, Ohio, was born May 31, 1826, in Herdorf, a village in Rhenish Prussia, Germany. His father was interested in iron-mines, and in smelting-furnaces, and being himself a man of culture, secured for his son a classical educa-

tion at the high school of Liegen, and at the gymnasium (college) of Münsterfel and Treves. His medical studies were pursued at Munich, Halle, Berlin, and Prague. Having completed his professional studies, he came to the United States in 1848, and settled in Cincinnati, Ohio, where he still resides, and is engaged in the practice of his profession. He was Physician to St. Mary's Hospital for four years during the period when the late Dr. Blackman was Surgeon. He gave lectures for a short time on laryngoscopy and diseases of the throat in the Miami Medical College. He has not written much for the medical press, but has used his pen industriously in scientific directions, and in contributions to encyclopedias, literary journals, magazines, etc. Part of his poems, written under the *nom de plume* of "Kara Giorg," have been collected and published under the title of "Poesien des Urwaldes" (Songs of the Primeval Forrest). Dr. Zimmerman, in his Manual of German Literature, ranks him among the three most eminent German-American poets. The Doctor has now in press, a work entitled "Culturvölker Alt Americas" (Civilized tribes of Ancient America"); the first part appeared about a year since and the second is passing through the press. From 1869 to 1871 he edited "The German Pioneer," a monthly historical magazine. He was for two years one of the Board of Directors of the University of Cincinnati, and for six years on the Board of Examiners for the Public Schools. He is one of the Curators of the Historical and Philosophical Society of Ohio. He is also a member of the Archæological Society of Ohio, of the Social Science Society, the American Association

of Anthropology, the Natural History Society of Cincinnati, and of a number of benevolent institutions, and the various local medical organizations of Cincinnati; as well as the American Medical Association, the meeting of which he attended in San Francisco, in 1871. He is also an honorary member of the California State Medical Society. He published in the *Volks Freund* a series of letters descriptive of the trip to California, and his observations while *en route* and on the Pacific coast. Dr. BRÜHL is a man of great mental activity, which, with the admirable scientific training he has had, enables him with ease to keep a front position among the scientists of our country.

BRUNER, DANIEL IRELAND, M. D., of Columbia, Pa., was born in Caernarvon Township, Berks Co., Pa., June 22, 1807. His parentage was of German and French origin. His education was received at the Academy at West Chester, Chester Co., Pa. His preceptor in medicine was Dr. Isaac Bruner, of Leacock Township, Lancaster Co., Pa., with whom he studied two years—1827 to 1829—and then as private student with Dr. Thomas Harris. He graduated in medicine at the University of Pennsylvania, in 1830, his thesis being on asthma. He settled in May of the same year at Morgantown, Berks Co., Pa. In 1850 he removed to Columbia, Pa., where he now resides, and is still engaged in practice. He is the Examining Surgeon for the United States Pension Office, at Columbia. He is now a widower, and has four living children: Ellen W., Edward D., Anna F., and William S. The last-named, is a practicing physician at Dun-

cansville, Blair Co., Pa. Dr. Bruner believes himself to be the first American physician who successfully used large doses of digitalis in the treatment of delirium tremens. He attended the meeting of the American Medical Association at San Francisco in 1871 as a Delegate from the Lancaster County Medical Society. He is a member of the State Medical Society of Pennsylvania, of the American Medical Association, and an honorary member of the California State Medical Society. He expressed much satisfaction with his trip across the continent, and gratification with the hospitality and courtesy shown by the profession and citizens of California to their visitors.

BUCKINGHAM, RICHARD GREEN, M. D., of Denver, Col., was born at Troy, Rensselaer Co., N Y., September 14, 1816. His maternal grandfather was Captain Florence Crowley, of the Revolutionary Army. His great uncle (mother's side) was Philip Milldoler, President of Rutgers College, New Brunswick, N. J. His father and mother were upright citizens and exemplary Christians, and lived to the ripe age of eighty-three and eighty-five respectively. The Doctor received his education at the Troy High School and the Rensselaer Institute, now the Polytechnic School. His medical studies were begun under Dr. Thomas W. Blatchford, of Troy. He attended his first course of lectures at Pittsfield, Mass., in 1834, second at the Jefferson Medical College, Philadelphia, and graduated after another or third course at Pittsfield, in the fall of 1836. He spent the following winter in the old Broadway Hospital, New York.

Commenced practice in July, 1838, at Montevallo, Shelby Co., Ala. In 1841 he removed to St. Louis, Mo., and had charge of the Marine Hospital, the Sisters of Charity having the domestic management of the institution. Removed to Lexington, Lafayette Co., Mo., in 1842, where he engaged in practice till 1863, when he removed to his present residence in Denver, Col. He was one of the originators of the Denver (County) Medical Association, and represented it in the meeting of the American Medical Association at San Francisco, Cal., in 1871. The Doctor had spent so much of his life in the West, and so many years in sight of the snow-capped peaks of the Rocky Mountains, that the impression *en route* to California was to him less novel than to most of the other physicians. His familiarity with the native Indians and great mountains and canons made him quite entertaining to his fellow-passengers. He has been too much engaged in the bustle of life for the past few years to commit his observations to writing. In his earlier professional life he contributed frequently to the current medical literature of the day. He was President of the Denver Medical Association, and also of the Colorado Medical Society. He was an influential member of the Colorado Territorial Senate in 1874. Is now, and has been for several years, an active member of the medical fraternity, having filled most of the offices within the gift of the profession, and assisted in the organization of the first medical society formed in Colorado. He has been President to the Board of Trustees of the Institute for the Education of Mutes of the Territory of Colorado, for the past three years,

and took an active part in its organization and management, and has been re-appointed by the Governor of Colorado a Trustee under its new organization as an institution of the State, and is still acting as President of the new board. He is at the present time Mayor of the city of Denver, elected April, 1876, for a term of two years. In November, 1839, he was united in marriage to Caroline M. De Forest. They have three children, daughters, all married, and nineteen grandchildren.

CASTLEHUN, F. C., M. D., St. Louis, Mo.

CATLIN, BENJAMIN HOPKINS, M, D., of West Meridan, Conn., was born in Harwinton, Litchfield Co., Conn., August 10th, 1801. His first American ancestor was Thomas Catlin, who settled at Hartford, early in the seventeenth century. His ancestry in New England have given a long line of respectable practitioners in medicine and surgery. The subject of this notice in youth assisted his father on the farm, and attended the public schools of his native place, and then for four winters at the Harwinton Academy, and part of a year in the special studies of the classics, under Rev. Luther Hart, in Plymouth, Conn. His medical studies were commenced under Dr. Roswell Abernethy, in his native town, and were continued under Dr. Lyman Catlin, of Plymouth, and subsequently with Dr. E. C. Peat, of New Marlborough, Mass. In the early years of his studies he was obliged to interrupt them in winter to teach school in order to obtain funds to assist him in completing his medical studies. He attended lectures at Yale College in the winter of

1824, and graduated in the spring of 1825. Commenced practice at Hadden, July 13, 1825, and occupied the place made vacant by the death of Dr. Andrew Warner, where he soon acquired a fair practice. On the death of Dr. W. Woodruf, of Meriden, in 1842, he was invited to move thither, which he did, at a time when the place had but 2,000 inhabitants, but is now a city of 16,000. He has resided there ever since and has had, to the fullest extent, the confidence of the community, and enjoyed a very large practice. In the last few years, however, he has confined his labors to consultation, office, and village practice. Dr. Catlin married Amelia Deborah Spencer. They have but one son now living, William H. His oldest son, Benjamin Spencer, studied medicine, and served with distinction as a Surgeon during the war, and settled to practice at Troy, New York. He died in February, 1871, at his brother's in Missouri, where he had gone for his health. The Doctor was accompanied by his wife on his trip to the meeting of the American Medical Association in California. They extended their visit to the Yosemite Valley, Big Trees, and other places of interest, and greatly enjoyed the grand scenery and wonders of the Pacific Coast. Doctor Catlin is a member of the New Haven District Medical Society, the American Medical Association, and the Connecticut State Medical Society. He was President of the latter in 1856-57, and made an admirable address. In 1865 he made a report to the American Medical Association on Typhus Synochia, or spotted fever, which is printed in the Transactions for that year. He was President of the Connecticut

State Medical Society for two years, from May, 1856, to May, 1858; Vice-President of the American Medical Association, in 1873; and President of the Rocky Mountain Medical Association in 1874, when he read an interesting address. He received the honorary degree of M. D. from Yale College in 1840, and is an honorary member of the California State Medical Society, and of the New York State Medical Society.

COLLINS, GEORGE LEWIS, M. D., of Providence, R. I., was born at Hopkinton, Washington Co., R. I., December 31, 1820; died of paralysis, at same place, August 21, 1877. His father was a Friend, a farmer, descended from an ancient family which emigrated from Stepney, in England, in 1635. The estate on which he was born has been owned by the family since 1715. The subject of this sketch attended district and select schools during his youth, and then entered the Friends' New England Yearly Meeting School, where he continued from 1838 to 1842. In June, 1843, he became a student of medicine in the office of Dr. Henry W. Rivers, of Providence. He attended two full courses of lectures at the University of New York, where he graduated in 1846, and in April of the same year opened an office in Providence. Here he continued to reside, and by his superior ability and devotion to his profession acquired and enjoyed a large and responsible practice. The Doctor was a close and, in a degree, an original observer, and contributed many articles of value to the *Boston Medical Journal*, and also to the Transactions of the State Medical Society. In earlier years surgery

was his favorite branch, but later on he was chiefly engaged in general practice. Throughout his life his profession was held as claiming his first and constant attention, and although he held many places of trust and honor, they all had relation to or were associated with education, the care of the sick, or public health measures. He was City Physician, and attended the city hospital and Dexter Asylum from 1847 to 1866; Physician to the Providence Reform School from 1850 to 1870; Attending Physician to the Rhode Island Hospital from 1868 to 1872, and after that Consulting Physician. To this institution he gave a part of his library. He was also Consulting Physician to the Butler Asylum. He was President of the Providence Medical Association from 1870 to 1872, and President of the Rhode Island Medical Society for several years, and held the same office for many years in the Providence Franklin Society; a Trustee of Brown University; member of the Rhode Island Historical Society, the Providence Medical Association, member and one of the Vice-Presidents of the International Medical Congress in 1876. He also served as a delegate to the International Medical Congress which assembled in Paris in 1867. Of late years he felt the necessity of occasional relaxation from business, and had traveled extensively throughout our own country, visiting the South several times. He made three several visits to Europe, in 1867, in 1873, and in 1877. From this last trip he had but recently returned, and in what his friends hoped vigorous health. He was a careful and extensive reader and a most industrious practitioner, keeping himself well posted with all improve-

ments and advances in diagnosis and practice, and was a frequent attendant and participant in the discussions of the American Medical Association, of which he was a valued member since 1849. He loved his profession and did all he could to elevate and advance its interests. He enjoyed his trip to the Pacific in 1871, as a delegate to the meeting of this society, and after adjournment made a trip to the Yosemite Valley and other places of interest in California, and stopped a day *en route* at Salt Lake City. The Doctor was united in marriage, October 27, 1848, to Laura Southwick Capron, of Worcester, Mass. Three of their children are living—one son and two daughters. The former has commenced the study of medicine, and promises to be a worthy successor to his father's genius and reputation. The sudden death of Dr. Collins from cerebral hemorrhage was an unexpected shock to his many friends and patients, among whom he had been mingling in friendly and professional intercourse but thirty-six hours before they were called upon to mourn his demise. He had lived a most useful and exemplary Christian life, and was favorably known by almost every resident of Providence and the State, and widely known to the profession throughout the United States. He remained attached to the Society of Friends to the last. His remains are deposited in Swan Point Cemetery.

COTTON, DAVID BARNES, M. D., of Portsmouth, O., was born at Marietta, Washington Co., O., April 5th, 1834. He was one of three brothers, physicians, sons of Dr. John Cotton, who graduated from

Harvard College in 1814, and in 1815 removed to Marietta, where he practiced his profession until his death in 1847. He was a lineal descendant on the male side of the great and justly celebrated preacher, Cotton Mather, who came to Massachusetts as early as 1633. The subject of this sketch has two brothers who studied medicine, also two sisters who married physicians.

He was educated at the Marietta College, where he graduated in 1853, during the time of Prof. Henry Smith and Prof. John Kendrich; E. W. and E. B. Andrews were teachers. His medical studies were begun under his brother, Dr. J. D. Cotton, of Marietta, and Drs. Mothershead and Ballard, of Indianapolis, Ind. He afterward attended a course of lectures at the Starling Medical College, 1854-55, and then a course at the Jefferson College, 1855-56, where he graduated M. D. In May, of this year, he commenced practice at Lyons, Clinton Co., Iowa, where he remained one year, and then, May 11th, 1857, settled at Portsmouth, where he has ever since resided. He is a member of the Sciota County Medical Society, from which he was a delegate to the meeting of the American Medical Association in 1871 (with which body he has been connected since 1859); of the Ohio State Medical Society, and an honorary member of the California State Medical Society. *En route* he visited Salt Lake City, and while on the Pacific coast made excursions to all the places of interest in California. He was united in marriage to Mary C. Slcombe, of Marietta, Ohio, November 21st, 1861, and has four children, all girls—Grace Gaylord, Mary Hannah, Kate Ballard, and Ethel Hamilton.

CRANE, JOB SYMMES, M. D., of Elizabeth, N. J., was born in Elizabeth, Union County, N. J., April 3d, 1825. He obtained his early education at the High School in his native place, and at the age of fifteen entered Princeton College, where he graduated in 1843. His office studies in medicine were begun under the direction of Dr. George R. Chetewood, in Elizabeth. After attending the usual course of lectures at the College of Physicians and Surgeons in New York, he received the degree of Doctor of Medicine in 1849. Immediately after, he opened an office in Elizabeth, where he has continued to reside. He soon acquired a good practice, which he still enjoys. Dr. Crane attended the meeting of the American Medical Association in California, in 1871, as a delegate from the New Jersey State Medical Society. He is also a member of the District Medical Society, and an honorary member of the California State Medical Society. The trip to California was to him a source of much pleasure, and a needed relief to a fatiguing practice, which he scarcely ever intermits. He is united in marriage to Helen Watkins. They have four children, Agnes O., Fannie W., Dewitt, and Helen B.

CRIST, DAVID LEVI, M. D., of Bloomington, Ills., was born at Thornville, Perry Co., O., May, 11th, 1817, and died at his residence at Bloomington, March 18th, 1875. Having received a good English education, he commenced the study of medicine with Dr. Robert Turner, of Thornville, Ohio, in 1839. After attending one course of lectures he entered upon the practice

of medicine at Mt. Sterling, Muskingum County, in 1842. In 1851 and 1852 he attended lectures at Starling Medical College, Columbus, Ohio, where he graduated in 1852. In October, 1853, he removed to Illinois, where he acquired a good practice, and which he retained until within a few months of his death. He was a member of the McLean County Medical Society, Medical Society of the State of Illinois, American Medical Association since 1865, and an honorary member of the California State Medical Society. He loved his profession, and was frequently in attendance at the meetings of the State and American Medical Associations. Although not a writer, his voice and efforts were earnestly given for the advancement of medical science. The Doctor was twice married. By his first wife he had three children, who survive him—Emma, Ella, and Howard. His second wife, Margaret Harris, is still living. Through his whole professional life he displayed a magnanimous, charitable, and sympathetic disposition, eminently calculated to warm, cheer, and encourage the sick and distressed. He lived a Christian's life, and his death-bed was memorialized by a true faith and perfect trust in the promises of his future life and happiness with God.

CUMMINS, ROBERT HAZLETT, M. D., of Wheeling, W. Va., was born at Washington, Pa., February 17th, 1817, died of pleuro-pneumonia at the residence of his mother, near Wheeling, April 12th, 1873. He was the eldest son of James and Mary Cummins, well-to-do farmers in Belmont Co., O. He was educated at Washington College, Pa., from which he received the honorary degree of Master of Arts.

His medical studies were pursued under the direction of Dr. F. J. LeMoyne, of his native town. After attending the usual course of lectures at the University of Pennsylvania he received his degree of M. D., in 1841. Shortly after this he located in Wheeling, W. Va., and formed a co-partnership with Dr. James W. Clemens, an arrangement which continued as long as the latter lived. Since 1850 the youngest brother of Dr. James Cummins had been associated with him in practice. His professional career extended over thirty-two years. His last illness was brief, which he bore with Christian fortitude. He fully appreciated the fact that it was likely to prove fatal, and discussed with his colleagues attending him the most appropriate treatment and the probable value of remedies in his case; submissive and confiding, resigning all to his Redeemer. His last request was to be embalmed, and that a post-mortem be made by the faculty of Wheeling. He was a man of great energy, untiring industry, and devotion to the best interests of the profession, and stood deservedly at its head in West Virginia. His literary qualifications were of the first order. His conscientious discharge of duty and laborious character enabled him to bring to every investigation the best attainable knowledge. As a citizen he was public-spirited, and greatly beloved by rich and poor. He was President of the Wheeling and Ohio County Medical Society in 1870-71, and President-elect of the State of West Virginia Medical Society at the time of his death. He contributed a number of valuable papers to the *American Journal of Medical Sciences*, and his address to the State Medical Society was pre-

pared before his death, and was read by a fellow-member (Dr. E. A. Hildreth,) at the regular meeting of the Society. He was an honorary member of the California State Medical Society, and a member of the American Medical Association. In 1849, Dr. Cummins was united in marriage to Ann, daughter of Samuel Ott, who, with six children, survives him.

CURTIS, EDWARD M., M. D., born in the town of Warren, Vt., February 16, 1840; died at Sacramento, Cal., May 12, 1874. He received a good academic education, and was prosecuting the study of medicine when the war of the rebellion broke out. The enthusiasm of youthful patriotism induced him to volunteer in the First Vermont Regiment. On the expiration of his enlistment, which was a short one, he resumed his studies and graduated a Doctor of Medicine at the University of Vermont in 1862. In August, 1863, he was commissioned Assistant Surgeon in the Sixth Vermont Infantry, with which he served continuously until October, 1864, when he was made Surgeon of the Fourth Vermont Infantry. Shortly after he was promoted to the important post of Brigade and then to Division Surgeon, in which position he served with distinction to the close of the war. On being mustered out of service he repaired to the city of New York, where he devoted himself assiduously, under the direction of Drs. Agnew, Noyes, and Knapp, to a most careful study of the diseases of the eye and ear. In 1867 Dr. Curtis opened an office in Oswego, N. Y., intending to engage only in his specialty, but did not find sufficient encourage-

ment, and was therefore reluctantly obliged to engage in general practice. He, however, had much patronage and special encouragement in his favorite branches. In 1870 he perceived that his health began to suffer from the seeds of disease contracted from the hardships endured in the public service. This induced him to move to Colorado, where he spent the winter. Here, under the influence of high altitude and an invigorating atmosphere, he recovered sufficiently to return to the active duties of his profession. In the spring of 1871 he went to California and was accredited as a Delegate to the American Medical Association from the Medical Society of Oswego. He was so well pleased with the Pacific that, in the hope of recovering his health, he concluded to settle in Sacramento. He speedily made friends, and successfully pursued his specialty, and not only enjoyed the confidence of the profession, but that of a generous public. But the precarious condition of his health at times was a serious drawback, and, with a view of restoring it, if possible, he engaged as a surgeon for a trip on one of the Australian steamers, and after a voyage of three months returned somewhat invigorated, but unfortunately not cured. Although he again engaged in practice, it was evident to his friends and to himself that his professional work was near a final close. Dr. Curtis was married to Abbie L. Humphrey, in November, 1864, but they had no children. His wife survives him and brought his remains to Burlington, Vt., where they are interred. The Doctor was an ardent student and well posted in the literature of his profession, and particularly in all the

branches to which he was especially devoted. He early connected himself with medical organizations and took an active part in their proceedings. As early as June, 1869, he read a valuable paper on "Asthenopia, or weak sight," before the Medical Association of Central New York. This was published in the *New York Medical Journal*, and also in pamphlet form. In October, 1871, he read a paper before the Medical Society of California, entitled "Why do we wear spectacles?" (See Transactions of Medical Society of California, and also pamphlet.) The following year he read before the California State Medical Society, a paper on "Amblyopia potatorum." (See Transactions and pamphlet.) In 1873 he read before the same society a paper entitled "How we become deaf." (See Transactions and also pamphlet.) In 1874 he read before the Sacramento Society for Medical Improvement, a paper on "The use of atropia in ophthalmic practice." (See *Pacific Medical and Surgical Journal* and also pamphlet.) He was a member of the American Ophthalmological Society; the Medical Association of Central New York; the Oswego County and City Medical Society; the California State Medical Society; the Sacramento Society for Medical Improvement, and the American Medical Association.

CURWEN, JOHN, M. D., of Harrisburg, Pa., was born at Lower Merion, Montgomery Co., Pa., September 20, 1821. After attending the public schools of his neighborhood he was sent to the Rev. Samuel Phinney's Academy at Newburgh, N. Y. From there

he went to Yale College, where he graduated in 1841. In September of the same year he commenced the study of medicine with Dr. William Harris, of Philadelphia, and graduated from the University of Pennsylvania in 1844. He wrote his thesis on "Scrofulous Ophthalmia," and was from July, 1843, to June 3, 1844, a student in Will's Hospital. At this date he entered as an Assistant Physician the Department for the Insane in Pennsylvania Hospital, where he remained until October 1, 1849, when he resigned, spending his time in general practice and attending the hospitals until February 6, 1851, when he was elected Superintendent of the State Lunatic Hospital at Harrisburg. Here he has built up, and still conducts, a large State hospital for the treatment of the insane. In 1850 he published a small work entitled "Manual for attendants of hospitals for the Insane." Besides the annual reports of his institution, he has contributed valuable papers on the treatment of the insane, to the American Medical Association, to the Medical Society of the State of Pennsylvania, and to the Society of the Superintendents of Hospitals for the Insane. He also wrote papers advocating the establishment of a hospital by the State at Danville and Warren, for the insane of Pennsylvania, with other memorials, to advance the cause of the proper care of the insane. He was President of the State Medical Society of Pennsylvania in 1868, on which occasion he read an admirable address, mainly devoted to his specialty. In 1871 the Doctor visited California to attend the meeting of the American Medical Association, as a Delegate from the Dauphin County Medical

Society. He visited the hospitals for the insane and other public charities of California, and expresses himself highly gratified with their condition. Taking a few weeks' recreation, he also visited Sonora, Napa and Yosemite Valleys; also Stockton, and the Calaveras big trees. He left with the impression that a visit to the Pacific coast well repays for the labor, and that California is a delightful place of residence. Dr. Curwen is a member of the Dauphin County Medical Society, Pennsylvania State Medical Society, American Medical Association, and of the Association of Medical Superintendents of Institutions for the Insane, and an honorary member of the California State Medical Society. In 1862 the degree of LL. D. was conferred upon him by Jefferson College. He is also a corresponding and honorary member of a number of learned societies. Dr. C. has given his whole professional life to the specialty of caring for the insane, and has long occupied a deservedly eminent position in the profession. In 1873 he lost by death his wife. He has one child, a daughter, living.

CUTTER, EPHRAIM, M. D., of Cambridge, Mass., was born at Woburn, Middlesex Co., Mass., September 1st, 1832. He is the son of the late Dr. Benjamin Cutter, who honored his profession in Woburn for nearly forty years. His mother was a woman of energy, culture and intelligence. His maternal grandfather was Amos Whittemore, the celebrated inventor of the card machine of the last century. Dr. Cutter was educated at the Warren Academy in his native town, and graduated at Yale College, A. B. in 1852, and A. M. in

1855. His medical degrees were received at Harvard College in 1856 and at the University of Pennsylvania in 1857. He commenced practice in 1856, in Woburn, where he labored for nineteen years with success and reputation. In 1865, he opened an office in Boston for the special treatment of diseases of the throat and lungs. This he still attends a portion of the week. In 1875 he removed to Cambridge. In his new location he has confined his practice to his specialties. For years he has been making a careful study of consumption, as well as the causes and nature of chronic diseases. In the course of his investigations he has been able to make micro-photographs of the diseased appearances of the blood in phthisis and syphilis, which have been pronounced by good judges to be admirable. He and his associate were among the first to use objectives as high as the 1-50 inch and 1-75 inch in micro-photography. He has made modifications of the methods so that they have become quite simple and practicable to other workers. The Doctor is an ardent lover of his profession, and a prolific writer, having contributed over eighty papers and articles to medical literature. He was a member of the committee for a revision of the United States Pharmacopœia in the convention of 1860. In 1862 he visited Europe and was influential in introducing the veratrum viride as an arterial sedative. In this visit he came in contact with most of the leading medical men in Great Britain and Austria. In 1861 he was appointed a member of the Citizens' Committee of One Hundred Massachusetts Soldiers' fund, embracing the most eminent civilians in the state. Dr. C. is united in marriage

to Rebecca L. Sullivan, and has had nine children, five of whom are living, Benjamin, Ephraim, John Ashburton, Grace Dunning, and Edward Parker. The Doctor is an inventive genius and has greatly improved some of our surgical instruments, as well as made a few new ones of value to the profession. In 1858 he devised a laryngoscope and other accessory appliances and instruments for operating upon the throat. By his procedure the tube can be omitted in tracheotomy and in the operation of thyrotomy for the removal of new growths from the larynx. He is well known for his devices for the relief of anteversion and the other uterine displacements. He has gotten up new forms of the clinical microscope, which render it more convenient for use at the bedside. His invalid-bed was noticed in the Centennial of American Surgery. His invalid-chair has received the most flattering encomiums from those who have used them. His ecraseur for post-pharyngeal and intra-uterine polypi was warmly praised by Dr. H. R. Storer. He invented new electrodes and a battery for the application of galvanism to subserous uterine fibroids, the results of forty-three cases of which have been published. He is a well-read, intelligent, and accomplished physician of indefatigable industry and perseverance. He is a member of the American Medical Association, of the American Public Health Association, of the Massachusetts Medical Society, of the Middlesex South District Medical Society, of the Cambridge Improvement Medical Society, and an honorary member of the California State Medical Society, of the New Hampshire State Medical Society,

and of the Middlesex, Mass., East District Medical Society. When in California he visited the Geysers, Yosemite Valley, Lake Tahoe, Virginia City, and other localities of special interest to strangers. The following are the titles of a few of Dr. Cutter's more important publications :

Boylston Prize Essay, 1857.

Report on the Zymoses in 1857. Massachusetts Medical Society, 1858.

Dr. N. R. Smith's Anterior Splint. *Ibid.*, 1858.

Experiment with animal Vaccination, 1860. The first to show the feasibility of *vaccinating* kine.

Veratrum Viride as a Therapeutical Agent. Pamphlet, 1862.

Thyrotomy Modified. Pamphlet, 1872.

Emptor Therapeutique du Veratrum Viride. Pamphlet, Paris, 1862, etc.

Partial Report on the production of Vaccine Virus in the United States. Pamphlet, 1872.

"Is Flour our proper food?" Pamphlet, 1875.

A new battery and electrodes for Uterine Fibroids. Reprint, 1876.

A contribution to the treatment of Uterine Versions and Flexions. Pamphlet, 1872.

The same, rewritten in book form, 1876.

Food as a medicine in Uterine Fibroids. An essay, 1877.

A New Resting Chair, 1877.

Treatment of Consumption by Animal Food, 1876.

Indian Meal as a vehicle for heat, 1874.

A New Clinical Microscope, 1869.

A new Eustachian Catheter. 1872. American Journal of Medical Sciences.

DAVIS, NATHAN SMITH, M. D., of Chicago, Ill., was born January 9, 1817, in a log cabin built by his father on a farm taken up in the forest, near the town of Greene, Chenango Co., N. Y. He is the youngest of seven children of Dow and Eleanor (Smith) Davis, enterprising pioneers and agriculturists of Western New York. His father was born near the

Hudson, in New York, and lived to be over ninety years of age. His mother died at the age of forty-five, when the Doctor was but seven years old. His education was acquired in the common district school, which was taught only during the winter; the remainder of the year, until the age of sixteen, he spent in working on the farm with his father and brothers. He was from childhood of spare habit, and of a very active nervous temperament. An outdoor life doubtless assisted much in the development of a healthy physical organization, which under less favorable circumstances might have succumbed or entailed a feeble constitution. Habits of industry, too, were thus acquired and self-reliance inculcated.

An inherent love of study, with great facility in acquiring knowledge, had already placed him in advance of the subjects taught in the common schools. His father discerning the strong bent of his mind, though with but scant means, did what he could to procure for him a better education than the district school afforded. With this view, in his sixteenth year, he was sent to Cazenovia Seminary, in Madison County, where he studied chemistry, natural philosophy, history, algebra, Latin, etc. Although he did not remain long at the seminary, he nevertheless was confirmed in his taste for higher studies and a determination to acquire a profession. Nature had endowed him with strong perceptive faculties, which, with his industry, were then laying the foundation in the acquisition of knowledge and correct habits, which has led on to his eminent success in life.

In April, 1834, he commenced the study of medi-

cine in the office of Dr. Daniel Clark, of Smithville Flats, Chenango Co., N. Y. He boarded with his preceptor, in consideration of which he rendered some service. In October of this year he matriculated in the College of Physicians and Surgeons of the Western District of New York, located at Fairfield.

This institution at this time had a most excellent faculty. At the end of the first lecture term he entered the office of Dr. Thomas Jackson, then the leading physician of Binghamton. His pupilage was continued under this last-named physician until he graduated, at the close of his third course of lectures, from the College of Physicians and Surgeons at Fairfield, in January, 1837, and before he was twenty-one years of age. His thesis was on "Animal Temperature," in which he combated the then faulty doctrine that the heat of the body was produced by the union of oxygen and carbon in the lungs. Its merits induced the faculty to select it to be read before the Trustees on Commencement Day, as a part of the public exercises.

About this time, Dr. Daniel Chatfield, of Vienna, Oneida County, in consequence of failing health, applied to the faculty for the assistance of a young physician. Dr. Davis being recommended, accepted, and accordingly commenced practice at this place in February, 1837. It did not, however, present sufficient attractions to a man of his ability and aspirations, although his time was fully occupied, owing in part perhaps to the protracted ill-health and absence of Dr. Chatfield. At the expiration of four months Dr. Davis removed to Binghamton, Broome County, and

opened an office. Here he speedily won the esteem of the inhabitants and acquired a good and an increasing practice.

On the 5th of March, 1838, Dr. Davis was united in marriage to Anna Maria, daughter of Hon. John Parker, of Vienna. They have three children, all living, two sons and a daughter. His oldest son, Frank H., is a physician in good practice in Chicago.

The studious habits and almost unwearied powers of application developed in youth in our subject have not forsaken him since he has become engrossed in a laborious practice; on the contrary, he seems to have been constantly widening and extending his scientific inquiries and studies. Among the themes that early engaged his special attention were practical chemistry and medical botany. His mind has been occasionally directed to many other branches of the natural sciences. During the early years of his practice, to perfect himself in anatomy and to instruct his students, he dissected each winter, in an upper room attached to his office, one or two cadavers, which he had generally to procure himself. At this period he occasionally and by special request gave lectures in the Binghamton Academy, and in the larger district schools of that section of the state, on physiology and botany. He has been from the commencement of his professional career a most diligent student, taking not only an active but a leading part in all measures that had for their object the increase of medical knowledge and the improvement of the general sanitary condition of the community in which he resided.

He was an active member of the Lyceum Debating

Society of Binghamton. Practice of this kind doubtless enabled him early to overcome any natural diffidence of manners, so that his contemporaries only know him as a ready and forcible speaker. He wrote for the medical journals almost from the time he entered the profession, and some of his first contributions have been widely copied. This was notably true of his article on the "Physiology of the Brain," which appeared in the first volume (1844) of the *American Journal of Insanity*, p. 235, and was extensively commented on by the European journals. Immediately after going to Binghamton he joined the County Medical Society, and in 1838, was one of the Broome County Medical Society Censors.

In 1840 he won the prize offered by the New York State Medical Society, in 1838, "for the best essay on diseases of the spinal column, their causes, diagnosis, history, and mode of treatment." (*Trans. N. Y. State Med. Soc.*, 1840, p. 262.) In 1841 he contributed an article to the *American Journal of Medical Sciences* (new series, vol. 2, 1841, p. 371) describing a case of double hare-lip, both fissures extending through the roof of the mouth and palate. In 1842 he contributed a paper to the New York State Medical Society (*Trans.*, p. 44), entitled "A Brief Review of Dr. Marshall Hall's Views on the Excito-Motary system of Nerves," for which he received the unanimous thanks of the Society. (*Trans.*, p. 79.) The same year he contributed a very suggestive paper on the epidemic influenza, as it prevailed at Binghamton in the spring, of 1843. (*N. Y. Jour. Med. and Coll. Sci.*, vol. 1., 1843, p. 362. In 1843 he communicated

an interesting paper entitled, "Medical and Topographical sketches of Binghamton and the surrounding country." (*Trans. N. Y. State Med. Soc.*, 1843, p. 294.

In the same year he was appointed Delegate to the New York State Medical Society from Broome County. He was Secretary of the County Medical Society in 1841, 1842, and 1843, and also Librarian the last year, retaining this office until he left the county. In 1844 he communicated to the New York State Medical Society, "The Medico-Legal Testimony in the trial of Mrs. Turpenning for the Murder of her Husband, with Observations on the same." (*Trans. N. Y. State Med. Soc.*, 1844, p. 50.) He served on several leading committees at this meeting of the Society, one of which was especially important, relating to "What alterations, if any, are required in the existing laws regulating the practice of physic in the state?" (*Trans. N. Y. State Med. Soc.*, 1844, appendix, p. 12.) The same year he was appointed Chairman of the Committee of Correspondence relating to Medical Education and Examination, and made an able report in 1845, with recommendation for legislation. (*Trans. N. Y. State Med. Soc.*, 1845, appendix, p. 119.) He also issued a circular to medical colleges and to medical societies for an expression of their judgment as to expediency of separating entirely the business of teaching and licensing in the medical profession. (*Trans. N. Y., State Med. Soc.*, 1845, appendix, p. 119.) He published a report of the evidence taken in the case of *The People vs. Riley Drake*, on an indictment for manslaughter in the fourth degree, tried at Bingham-

ton in 1844. (*N. Y. Jour. Med. and Coll. Sci.*, vol. 3., 1844, p. 343.) In 1845, at the meeting of the New York State Medical Society, Dr. Davis offered the following resolution, which eventuated in holding the first National Convention of Delegates from Medical Societies and Colleges of the United States :

WHEREAS, It is believed that a National Convention would be conducive to the elevation of the standard of medical education in the United States; and *whereas*, there is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges, and institutions of all the States ; therefore,

“Resolved, That the New York State Medical Society earnestly recommend a National Convention of Delegates from Medical Societies and Colleges in the whole Union, to convene in the city of New York, on the first Tuesday in May, in the year 1846, for the purpose of adopting some concerted action on the subject set forth in the foregoing preamble.”

Drs. Davis, McNaughton, and Van Buren were appointed a committee to carry out the proposed measure. (*Trans. N. Y. State Med. Soc.* 1845, *appendix*, p. 148.) In November of this year he published an article outlining the measures deemed important that the National Medical Convention called for May, 1846, should consider and act upon. The article alluded to is entitled “The New York State Medical Society and a National Medical Convention.” (*N. Y. Jour. Med. and Coll. Sci.*, vol. 5, p. 416.) He also furnished information to other medical journals and conducted an extensive correspondence on this subject with influential medical gentlemen in almost every State of the Union.

He published three articles entitled “National Medical Convention” in the spring of 1846. (*N. Y. Jour. Med. and Coll. Sci.* vol., 6, pp. 131-284-431.) This year

he also contributed a paper entitled "Observations on an Obscure Point in Pathology." (*Trans. N. Y. State Med. Soc.*, 1845, p. 70. According to usage, he became, in the year 1846, a permanent member of the New York State Medical Society. (*Trans. State Med. Soc., list of permanent members*), and was elected an honorary member in 1866.

The activity of the Doctor's mind and his interest in the profession may be inferred from his numerous and valuable contributions to medical journals and to the Transactions of the New York State Medical Society; but the origination of the measures that led to the organization of the American Medical Association, and the judicious and persistent manner in which he pressed them forward to a successful issue, justly entitle him to the deepest and most lasting gratitude of the medical profession of the United States. Since the success and national character of the association has become established, others have been inclined to claim something of the merit that belongs to its conception and organization. The following are some of the contemporary writers that have fully conceded to Dr. Davis the honor of being the father of the National Medical Association. In prefacing an article already referred to, Dr. C. A. Lee, the editor of the *New York Journal of Medicine and the Collateral Sciences* (vol. 6, p. 111), uses the following language: "We invite particular attention to the following very just remarks from the gentleman who originated the plan of a Convention as recommended by the State Medical Society." The President of the New York State Medical Society in 1849, Alexander H. Stevens,

M. D., on page 39 of the Transactions, uses these words: "For having at the instance of Dr. Davis taken the lead in forming the National Medical Association." It is true, however, that the desirableness of some such organization had occurred to others, and had been agitated in medical faculties and societies, but no one had given the project a practical direction. The Convention which had met in Washington, D. C., and formed the United States Pharmacopœia in 1820, and arranged to hold meetings for its revision every ten years, proved to be a great success, and its action no doubt suggested to the profession the feasibility of holding conventions for other desirable purposes. The Medical Society of Vermont as early as 1827 invited, by resolution, medical societies and institutions in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York, to meet in convention at Northampton, Mass. A meeting was accordingly held, and the proceedings have been published in pamphlet form. This convention was comparatively local as to its call and limited to a few purposes of common interest. The Medical College of Georgia in 1835 advocated the calling of a convention of all the colleges, so as to advance medical education. The New Hampshire Medical Society in June, 1838, passed a resolution that an annual National Convention of the medical schools and societies be held, commencing in the year 1840. (*Amer. Jour. Med. Sci., Nov., 1838.*) The Medical Convention of Ohio in the spring of 1838 passed a similar resolution, recommending the holding of a convention of the medical schools and societies. (*Amer. Jour. Med. Sci., Aug., 1838.*)

Although much discussion on the subject had taken place, the earliest distinct suggestion that a permanent National Medical Society, to meet annually, should be formed, and that it should embrace the whole United States, I find in a letter written by Dr. Davis at Binghamton, bearing date September 22, 1845, which is published in the November number of the *New York Journal of Medicine and Coll. Sci.*, p. 416. Dr. Davis, in his History of the American Medical Association, p. 26, concedes the first direct suggestion of forming a permanent National Medical Society as coming from Dr. Ticknor, whose letter is dated October 3, of the same year. But Dr. Davis's letter, as well as Dr. Ticknor's, are given in the same number from which the extracts referring to the project are taken. Dr. D.'s bears date September 22, 1845, which leaves the priority with him, and exemplifies the modesty of the man in not claiming the honor for himself. These facts are so well known to the profession of the whole country, and particularly to the older members, who constantly alluded to him as the Father of the American Medical Association, that they require no farther elucidation. It is a matter of history as well as of public notoriety that the convention met in the city of New York, on the sixth of May, 1846, and was well attended. It organized promptly, and continued its sessions for two days, deliberating on all such measures as were brought before it, referring important questions to committees, to report at a future meeting, which was arranged for and was held in the city of Philadelphia, May 6th, 1847. At this, the second meeting, the association completed

its plan for a permanent organization; adopted a code of ethics, and was regularly launched upon its grand career of usefulness to the profession of the United States. The age of the American Medical Association ought to be reckoned from its first meeting in 1846, when it resolved to organize a National Medical Association, and not from 1848, as is commonly done.

At the last meeting in Detroit a medal was ordered to be struck bearing the likeness of Dr. Davis on one side, and the words "American Medical Association, 1846" on the obverse, which has been admirably executed at the United States Mint, and is now to be had by the profession. During the thirty-one years this society has existed, it has held twenty-nine meetings. The Doctor has been present at all of them save three. During the reading of reports and the business of the general session he is always an attentive observer. From the first meeting he has been almost always upon one or more of the important committees, and has made more reports than any other member. His official duties have not kept him from presenting valuable papers on a variety of subjects of professional interest. His contributions to this Association are so numerous that I will not attempt to give even the titles. The deep and intelligent interest he has always taken in its success and in the elevation of the profession has been apparent to all its members, as well as to the professors in our medical colleges and to every reader of American medical literature. No member has ever had so clear a perception of the proper scope and real province of the Association as Dr. Davis. As a consequence, whenever per-

plexing questions have come up in the meetings, none was so able to make plain the duty of the hour, and to suggest the best modes of disposing of them. He has been honored by election to almost every position within its gift, and twice chosen its President. He is an exceedingly good debater, a close and logical reasoner, always self-possessed, animated in voice and magnetic in manner, with a degree of familiarity and accurate knowledge of the medical institutions of our country, and the views of the leading medical men, that is not equaled, certainly not excelled, by any other physician who has attended the meetings. This gives him at once a decided advantage in directing debates on all questions affecting the purposes or powers of the Association. From the first meeting he has kept steadily in view the elevation of the standard of medical education, and has finally convinced the profession of our country, and the faculties of most of the colleges, that their lecture term ought to be increased and the classes graded.

In 1859 he was instrumental in organizing a college on the principle of graded classes, with a six months' lecture term and a three years' course prior to graduation. He assisted the institution largely with his private means, and secured for it a good medical library. This same principle has since been adopted by Harvard University, the University of Pennsylvania, and several other colleges, and its adoption is but a question of time with all our first-class medical schools. While the principle has not yet been fully approved by all the colleges, the influence of the American Medical Association, by its persistent discussion of the subject of

medical education and unceasing demand for higher professional qualifications, have done more for reform than all other institutions and means combined.

In 1847, Dr. Davis removed to the city of New York, where he enjoyed a good practice, and the following winter, at the solicitation of the Demonstrator of the College of Physicians and Surgeons, he took charge of the dissecting-rooms and gave instruction in practical anatomy; and at the suggestion of the faculty, gave a spring course of lectures on Medical Jurisprudence.

Besides the contributions already referred to, the following deserve special mention: A Few Observations on some of the most common Diseases of the Digestive Organs. (*Trans. N. Y. State Med. Soc.*, 1847, p. 13.); An Essay on the Philosophy of Medicine and the Spirit in which it should be studied and practiced (*N. Y. Jour. Med. and Coll. Sci.*, vol. 9, 1847, p. 176; continued, p. 332, and in vol. 10, p. 196); Medical Education and Reform (*N. Y. Jour. Med. and Coll. Sci.*, vol. 8, 1847, p. 117); An essay on the Nature and Curability of Heterologous Tumors (*N. Y. Jour. Med. and Coll. Sci.*, vol. 10, 1848, p. 332); Medical Reform (an article in the April No. 1848, p. 254, of the *Annalist*, for reform in medical education; Remedial value and Proper Use of Alcoholic Drinks (written from Birmingham, in 1848, to the *Annalist*, vol. 2, pp. 313-351); Are Alcoholic Drinks capable of affording Nourishment, etc., (*Annalist*, vol. 2, p. 388;) Does the Use of Alcoholic Drinks increase Man's Capability for resisting Cold? (*Annalist*, vol. 2, p. 442;) Essay on Scarlet Fever (*Annalist*, vol. 2, pp. 11-26).

In 1848 he took charge of the editing of the *Annalist*, then commencing its third volume, which he continued to publish until his removal to Chicago. In July, 1849, he was elected to the chair of Physiology and Pathology in Rush Medical College, and in August started to his new home in Chicago, and at once entered upon his duties. The following year he was transferred to the chair of Practice of Medicine, retaining Pathology. He has from time to time received numerous testimonials of the regard of his class by the presentation of different articles of value.

When Dr. Davis went to Chicago there was no medical society in that city nor in the state. His ability in organizing contributed largely to the formation of the Chicago Medical Society and the Illinois State Medical Society, both of which were instituted in 1850. He served the State Medical Society twelve years as Secretary, and in 1855 as President, and has contributed to its Transactions one or more valuable papers almost every year. To the medical society of the city he has contributed many papers, and printed some of them in his journals. He was ever vigilant of the prevailing condition of the public health. Since his advent in Chicago he has been an almost constant contributor to the medical journals, and for more than twenty years has been the editor of an enterprising medical periodical, which has been able and independent, as well as practical and useful to the profession.

When Dr. Davis took up his residence there in 1849, Chicago was suffering from an epidemic of cholera. There was at that time no general hospital. However, temporary hospitals were improvised, the

Doctor taking an active part in all the public measures for the care of the sick. He has many claims to be considered as among the earliest physicians in the country who gave intelligent thought to the subject of preventive medicine. The evidences of this may be found in the many papers read before the Medical Association and other leading societies, of Chicago, as well as in the pages of the medical journal published by himself.

With the view of showing the necessity and developing a public sentiment in favor of greater sanitary observances in the city to protect the public health, and also the founding and supporting of a general hospital, Dr. Davis delivered a course of six lectures in the old State Street Market. In these he dwelt upon the deficient water supply, which was wholly from pumps and wells sunk but a few feet below the surface. There was at this time no underground sewerage. He pointed out the dangers attending this and suggested substantially the system that has since been adopted. The funds raised by these lectures were used in furnishing a part of the old Lake House, which was for a time used as a hospital. In the spring of 1851 the domestic management of the institution was given to the Sisters of Mercy, and it has since become, in its new location and buildings, one of the most important hospitals of Chicago. The Doctor remains the senior attending physician, and the clinics of the Medical Department of the North Western University are now held in Mercy Hospital, which has an admirable amphitheater, and is located in the same square as the Medical College.

Dr. Davis is an excellent diagnostician, systematic and thorough, neglecting no function of the body or mental peculiarity, deeming no symptom as trivial that can possibly have a bearing upon a case. Nothing seems to escape him in his descriptions and histories before the class. His power of endurance is wonderful, frequently giving twelve lectures a week. He has through life been regular in all his habits and strictly punctual in his engagements with his professional brethren and with his patients. At the age of sixteen he connected himself with the Methodist Church, and has ever since retained a consistent membership.

The great fire of 1871 in a few hours consumed all his property—the savings of a life-time. A like calamity attended nearly a whole community, many of whom were his patients and friends. He has kept strictly to his practice, which is large and remunerative, so that he is gradually recovering his great losses. He now confines his business to office and consulting practice. His residence is at Evanston, a few miles out of the city, to which he goes every evening, returning to his office early in the morning. I have been a guest in his house when he lived in Chicago and know something of the life that he leads, which is far more laborious than that of any physician with whom I am acquainted. Daily his office was filled with a string of patients from six o'clock in the morning until twelve; he then visited his patients in private families, or repaired to the hospital, or to the College to lecture, being often occupied up to eleven or twelve at night. This, with his duties as editor of a medical journal from 1855 until within the

last few years, and his extensive correspondence with physicians throughout the United States, must have taxed him to an extent that but few could have endured.

The Doctor takes but little recreation, except that gained by his yearly attendance upon the meetings of the American Medical Association. In 1871 I had the pleasure of visiting him at his home in Chicago, and then traveling in his company to California and back. After the meeting in San Francisco adjourned he visited some of the places of note near the Golden Gate, and stopped for a day at Salt Lake City.

Dr. Davis holds membership in a great number of societies, medical and scientific, among them the Chenango County Medical Society, N. Y.; the New York State Medical Society; the Chicago Medical Society; was president of the latter several times, also its secretary; the Illinois State Medical Society; its President in 1855 and its Secretary for twelve years, holding that post at the present time; the American Medical Association from its organization; its Vice-President in 1854, and its President from 1864 to 1866; one of the original members, and President of the Society of American Medical Editors in 1869; member of the Centennial International Medical Congress of 1876, and one of the Vice-Presidents; the American Public Health Association. He is also a member of the Chicago Academy of Sciences; the Illinois State Microscopic Society, and a life member of the Chicago Athenæum; a corresponding member of the New York Academy of Medicine; an honorary member of the College of Physicians and Surgeons of

Philadelphia, and of the California State Medical Society; Dean of the Faculty of the North Western University; Medical College of Chicago, and an original member of the Board of Trustees; President of the Washington Home, of Chicago, of the Asylum for Reformed Inebriates since 1870, and of the Evanston Philosophical Society.

The Doctor has delivered many public addresses, most of which have been printed in one form or other. But the following are among his more important publications:

"An Analysis of the Discoveries Concerning the Physiology of the Nervous System, from the publications of Sir Charles Bell to the present time" (1840). To this essay was awarded the prize offered by the New York State Medical Society in 1841. It was published in the Transactions for that year, and republished by the society in 1868, in a volume containing the more important papers presented to the society previous to 1843.

"A text book on Agricultural Chemistry, for use in District and Public Schools;" for which a prize was awarded by the State Agricultural Society of New York. (*S. S. & W. Wood & Co., New York, 184.*)

"History of Medical Education and Institutions in the United States from the first settlement of the country to 1850." 12 mo. 1850.

"Experimental Inquiries and Observations covering the effects of Alcoholic Drinks and other Substances in the Temperature of the Human Body; and on the Excretory nature of the Fibrin of the Blood;" read to the meeting of the American Medical Association in Charleston, S. C., May, 1851, and published in the *North Western Medical and Surgical Journal* for that year. This essay is founded entirely on original experiments and analyses of the author.

"History of the American Medical Association from its organization to the year 1855." (8 vo., *Lippincott, Grambo & Co., Philadelphia, 1855.*)

"Clinical Lectures on various Important Diseases." Edited by F. H. Davis, M. D., 12mo. Philadelphia, 1875. This work has already passed through a second edition.

"Address on the Progress of Medical Education in the United States of America during the Century ending in 1876," delivered before the International Medical Congress at Philadelphia, September 9, 1876.

"Contributions to the History of Medical Education and Medical Institutions in the United States of America, 1776-1876." This was a special report prepared for the United States Bureau of Education. Washington, Government Printing Office, 1877.

DAWSON, BENJAMIN F., M. D., of New York, N. Y., was born June 28th, 1845. His mother was an Osborn, whose ancestors were physicians of note in New York and Connecticut for the past century. He received an academic education at Columbia College New York, and then studied medicine and graduated at the College of Physicians and Surgeons, New York City, in 1865. The Doctor served for a time as Acting Assistant Surgeon, United States Army, toward the close of the war of the rebellion. After leaving the army he opened an office at No. 8 East Fifteenth street, New York city. From the outset he devoted himself chiefly to the study of obstetrics and the diseases of women and children, and shortly after settling to practice was appointed assistant to the Professor of Obstetrics and Diseases of Women and Children, and to the Clinical Professor of Diseases of Children in New York. To him the profession is indebted for originating, in 1867, and editing *The American Journal of Obstetrics and Diseases of Women and Children*, which he conducted with much ability for seven years, retiring from the arduous duties of editor after having made the journal one of the most widely circulated and most able published on this specialty in the world. Dr. Dawson, in 1868, in conjunc-

tion with the late Prof. Joseph Kammerer, of New York, gave their profession a translation of "Klob's Pathological Anatomy of the Female Sexual Organs." In 1870 he edited, with additions, the American edition of "Barnes' Obstetric Operations;" since then he has been a frequent contributor to the medical journals, and has published monographs on various subjects, as "The treatment of Whooping Cough with Quinine," "The Use and Comparative Merits of the Bi-chloride of Methylen as an Anæsthetic," "Special Points in Ovariectomy Operations," "The Relation between Alimentation and the Gastro-intestinal Disorders of Infants and Children." As an inventor he is well-known by his Ovariectomy-Clamp, his Modifications of Sim's Speculum, his Vaccinator, and the Galvanic-Cautery Battery, and other Instruments bearing his name. In 1873 Dr. Dawson was appointed in the Medical Department of the University of New York to deliver clinical lectures on the diseases of children. He has also held the position of Physician for Diseases of Children to the New York Dispensary, to the Demilt Dispensary, and the Free Dispensary for Sick Children; and at present is District Physician to the New York Lying-in-Asylum, and Physician to the Outdoor Department of the New York State Woman's Hospital. He is a member of the New York State Medical Society, of the New York Obstetrical Society, of the New York Academy of Medicine, and also of the New York Academy of Sciences, the New York Geographical Society, the American Medical Association, the Gynæcological Society of Boston, and honorary member of the California State Medical

Society. The Doctor has traveled extensively in this country, Europe, and South America, and is at present engaged in writing an account of his journey across the equatorial regions of the latter country.

DE BRULER, JAMES P., M. D., of Evansville, Ind., was born in Orange Co., N. C., September 21, 1817; died at Evansville, Ind., August 12, 1874. His parents removed to Indiana when he was an infant and settled on White Run, in Pike County. His education was received at the district schools and at the academy. He began the study of medicine at the early age of eighteen, and attended lectures at Louisville, Ky., where he graduated. In 1838 he began to practice at Rockport, where he resided for twenty years, assiduously engaged in the duties of his profession, which often called him many miles into the country. This labor began to tell seriously upon his health, and in 1858 he resolved to remove to Evansville, where he should have fewer fatiguing rides in the country.

Here he soon acquired a good business, and became associated with the Evansville Medical College, and one of the controlling spirits in the faculty. Dr. De Bruler held to the time of his death the chair of Theory and Practice in this institution. He was enterprising and public-spirited; and not only as a physician but as a citizen enjoyed the confidence and respect of the whole county. During the administration of President Lincoln he was appointed Surgeon to the Marine Hospital, which position he filled with ability and to the entire satisfaction of the depart-

ment. President Johnson appointed him Postmaster of Evansville, but on account of his health he declined the position without taking charge of the office. He was a member of the County and State Medical Societies, of the American Medical Association, and attended the meeting of the latter at San Francisco, Cal., in 1871. He was also an honorary member of the California State Medical Society. The Doctor was united in marriage, September 2, 1847, to Sallie E. Graham, of Rockport, who with one son, Claude, survive him.

DENIG, ROBERT McCLINTOCK, M. D., of Columbus, Ohio, was born at McConnellsburgh, Bedford Co., Pa., November 25, 1813. He is the son of Dr. Denig, a physician of large practice, and who was a staunch believer and a consistent follower of the principle taught by Dr. Benjamin Rush. The subject of this sketch was educated at the common schools and at the academy taught by Thomas J. Harris, of Chambersburg, Pa. He concluded his academical course at Kenyon, Ohio, in 1835, and then commenced the study of medicine with his father. The same year, he attended lectures at the Jefferson Medical College, where he graduated M. D. in 1838. He opened an office in his native place, where he continued to practice with success till 1849, when he removed to Columbus, Ohio. In his new field of labor he has been fully employed, and enjoys the confidence of the whole community. In 1864 he was elected to the chair of Medical Jurisprudence in the Starling Medical College, which he held for four years. In 1875 he was

appointed to the chair of Diseases of Children in the Columbus Medical College, a position which he still holds. In 1838 he was united in marriage to Jane R. Harry, of Chambersburg, Pa. They had eight children, all of whom are living—Edward C., Frank H., George A., Annette J., Howard E., Rush S., Robert G. and Katie R. Dr. Denig's wife died in 1861. He was married to his second wife, Laurretta B. Broderick, April 20, 1871, who accompanied him on his trip to California to attend the meeting of the American Medical Association. The Doctor's mind was in a favorable condition for enjoying the grand and wonderful scenery everywhere presenting along the route to the Pacific; his memory doubtless clings to the many very agreeable incidents of the trip, as well as to the hospitality of the profession of San Francisco, and the warm friendships formed during the sojourn and *in transitu*, as among the most pleasing reminiscences of his life. Dr. Denig has contributed many articles of value to the medical journals, as well as translated extensively from the French. He is a member of the Columbus City Medical Society, of the Medical Society of the State of Ohio, of the American Medical Association, honorary member of the California State Medical Society, and has been for many years a member of the city Board of Education.

DONAHOE, HENRY JAMES, M. D., of Sandusky, Ohio, was born in Washington, Washington Co., Pa., May 25th, 1828. His early education was received at the public schools of Rehoboth, Ohio, at St. Joseph's College, and the University at Athens, Ohio.

He began his medical studies under the direction of Dr. George H. Carpenter, of the last-named place. After attending lectures for two years he obtained his degree at the Cleveland Medical College in 1853. In May of this year he opened an office in Sandusky, Ohio, where he has enjoyed a large and responsible general practice, and a full share of surgery. He is a member of various medical associations, and has held important offices in a number of them, having been elected successively Secretary, Vice-President, and President of the Erie County Medical Society, and in 1857 Secretary of the Ohio State Medical Society. In 1856 he became a member of the American Medical Association. He was one of the physicians who crossed the continent to attend the Convention of the American Medical Association, at San Francisco, Cal., in 1871. While there he was elected an honorary member of the California State Medical Society. During the late war Dr. Donahoe was appointed surgeon of the 101st Regiment of Ohio Volunteer Infantry, but owing to dissatisfaction with some changes in the commanding officers of the Regiment he declined being mustered into the service. He did not, however, refuse his services in the hour of need. When the news of the battle of Shiloh reached Sandusky, the citizens in mass meeting made a unanimous request that Dr. Donahoe should go to the scene of carnage, and give surgical and medical aid to the sufferers. He promptly responded to the call and spent several months in this work. When Johnson's Island was selected as a prison for Confederate officers, he was chosen to organize the medical department of



the post, and was urged by the commanding officer to accept the appointment of Surgeon, but his time was so fully occupied with professional cases that he declined to accept the offer. While the Doctor has many professional cares from his constantly increasing business, he has found time to serve his fellow-citizens in some of the more important offices in their gift. He was President of the City Council for two years, and is now one of the most active and efficient members of the Board of Education, to which he has been twice elected without opposition. He has also served as Treasurer of the Sandusky Building and Loan Association for the past eight years. Dr. Donahoe is united in marriage to Emily A. Miller, of Sandusky, Ohio, they have four children—Henry Joseph, Lucy, James Francis, and Charles Faber.

DOUGLAS, GEORGE, M. D., of Brooklyn, N. Y., was born at Franklin, Delaware Co., N. Y., May 7th, 1823. His father was a lawyer and graduated at Williams College, Massachusetts. His ancestors, on his father's side, are direct descendants of the celebrated William Douglas, of Scotland. His academical education was acquired at the Delaware Literary Institute. His medical studies were begun with Dr. Daniel Clark, of Philadelphia. Attended a course of medical lectures each at Philadelphia, and at the Geneva Medical College, and at the University of New York, where he graduated M. D., in 1845. Immediately after this he opened an office at Oxford, Chenango Co., N. Y., where he entered at once upon a large and lucrative practice. Within the last year he

removed to the city of Brooklyn, N. Y. During the war he was one of the surgeons to the examining board for recruiting volunteers in the nineteenth district of New York. In 1858, the Doctor was united in marriage to Ada Ellen Funk. After her death he married, in 1866, Jane M. Migatt. He has one child living, Ada Ellen. Having acquired a competence, Dr. Douglas has retired from the labors and responsibilities of the profession, and is now living quietly in the enjoyment of domestic happiness, though he still loves his profession and is an encourager of medical organization. He is a member of the New York State Medical Society, the American Medical Association, and an honorary member of the California State Medical Society. During his trip to the Pacific Coast he visited the chief places of interest in California, among which were the Yosemite Valley, Calestoga Spa, and Calaveras grove of giant trees, and was gratified and well rewarded for the time bestowed in the journey.

DOUGLAS, SILAS HAMILTON, M. D., of Ann Arbor, Mich., was born at Fredonia, Chautauqua Co., N. Y., October 27th, 1816. Having received a good education at the Academy in his native town, and at the University of Vermont, he commenced the study of medicine with Dr. Zina Pitcher, of Detroit, Mich. After reading a sufficient time, he attended lectures at the University of Maryland. In 1842 he commenced practice at Ann Arbor, and in 1844 was elected to the chair of Chemistry in the University of Michigan, which position he has filled with much

ability. Since he has held this position, he has not engaged in general practice. A few years since he published a work on Analytical Chemistry, which has been well received and gone through several editions. He is a member of the Michigan State Medical Society, of the American Medical Association, and an honorary member of the California State Medical Society; a member and former Vice-President of the American Chemical Society, and corresponding member of the Academies of Sciences of New York and Chicago. The Doctor is united in marriage to Helen W. Welles. They have seven children, four daughters and three sons. The life-work of the Doctor has been devoted to building up the laboratory for instruction and research in the University of Michigan.

DUNCAN, WILLIAM STEVENS, M. D., of Brownsville, Pa., was born in Brownsville, Fayette Co., Pa., May 24th, 1834. He is the son of the honorable Thomas Duncan, who is of Scotch-Irish descent. His mother is the daughter of Dr. Benjamin Stevens, of Fayette County, who died in 1813. The subject of this sketch was educated at Mt. Union College, Stark Co., Ohio. His medical studies were commenced in 1855, with Dr. M. O. Jones, then of Brownsville, but now of Chicago, Ill. Matriculating in the University of Pennsylvania, and attending two full courses of lectures, he received his degree of M. D. in the spring of 1858. During the last year he was a member of the private class of Dr. J. J. Woodward in the special study of Pathology, Anatomy and Microscopy. In June, 1858, he formed a co-partnership with his pre-

ceptor in Brownsville, and commenced practice; this arrangement was terminated in about two years and a half by the removal of Dr. Jones to the city of Pittsburgh. The Doctor still occupies the same office in which he wrote his first prescription, and enjoys a good general practice. Latterly his labors have been occasionally interrupted by excursions, the winter months being spent in Florida or the south, and part of the summer in New England and Canada. Like most rural practitioners, he engages in general practice, including surgery, and has performed a number of important operations: for hernia, nine times, and tracheotomy for the removal of foreign bodies, four times—all successful; three times operated for membranous formations in the trachea—all fatal—and excision of head of humerus and of lower half of radius. Dr. Duncan is a member of the Fayette County Medical Society, and has held in turn all its offices; the Pennsylvania State Medical Society, and at present one of the censors; the American Medical Association, and honorary member of the California State Medical Society. He is a director in the Brownsville Dollar Savings Bank, and also a director in the Brownsville Railroad Company. Dr. Duncan was married, March 21st, 1861, to Amanda Leonard, of Brownsville. They have one child, a daughter. The Doctor is an active supporter of medical organizations, and has contributed a number of thoughtful and able papers. I will refer to a few by title:

“Malformations of the Genito-urinary organs.” *American Journal of Medical Science*, 1859.

“Belladonna as an antidote for opium-poisoning.” *Ibid.*, 1862.

"Medical delusions." A pamphlet published at Pittsburgh, 1869.

"Reports of cases to Pennsylvania State Medical Society, 1870-'72."

"Iliac aneurism cured by Electrolysis." Transactions of the same Society, 1875.

And a paper on the "Physiology of Death." 1876.

Dr. Duncan enjoyed his trip to the Pacific, visiting every place of note in California and *en route*, including a short sojourn at Salt Lake City.

ELMER, WILLIAM, M. D., of Bridgeton, N. J., was born at Bridgeton, October 5, 1814. He is the grandson of Dr. Jonathan Elmer, who graduated Bachelor of Medicine in the first class that left the University of Pennsylvania, in 1768, and received the M. D. degree from the same institution in 1771. He was an accomplished physician, and a man of letters, and was President of the New Jersey Medical Society in 1788; a member of the Provincial Congress 1776; of the general Congress in 1788; for many years presiding. Judge in the County Court, and then United States Senator; died in 1817. His father, Dr. William Elmer, also graduated from the University of Pennsylvania, in 1811, and was for some years extensively engaged in practice in his native place, but retired from it, and became immersed in other pursuits. The subject of this sketch attended the common schools, and then was sent, in 1825, to the Lawrenceville High School, where he prepared for his collegiate course. In 1830 he entered Princeton College, and graduated in 1832. He was selected to deliver on that occasion the English salutatory oration to the class. In September, 1833, he began the study of medicine in the

office of Dr. Joseph Parrish, of Philadelphia, and attended lectures in the University of Pennsylvania and graduated M. D. 1836. Immediately after this he was elected one of the Resident Physicians to Blockley Hospital, serving the usual term of one year, and for a few months served as Resident Physician in the Children's Asylum connected with the hospital. In July, 1837, he settled at Bridgeton, where he acquired a large and responsible practice extending throughout the county of Cumberland, which he enjoyed until in 1850, when he restricted his labors to the city of Bridgeton, except in consultations and special cases. Dr. Elmer has long been one of the Board of Managers of the State Lunatic Asylum at Trenton, and for many years has been a leading advocate in the cause of public education, and assisted largely in the establishment of the public school system adopted by the State, while he was a member of the first Board of Trustees. He was one of the originators of the West Jersey Academy, a classical school for the advancement of the cause of Christian education in that section of the State, and is President of the Board of Trustees of that institution. He holds the religious views of his ancestors, who present a long line of distinguished divines extending back to the Rev. Daniel Elmer, who came from Connecticut, and settled in Cumberland county in 1727, and was descended from Edward Elmer, who came from England to America in 1632, with a company of forty-seven persons, comprising the church of the Rev. Thomas Hooker. The Doctor himself has been for years a Ruling Elder in the West Jersey Presbyterian

church at Bridgeton, and was elected in April, 1877, the moderator of the West Jersey Presbytery. His trip to California and the Pacific opened up a broad field of observation and enjoyment, which was on his return made the subject of a lecture before the Cumberland County Medical Association, and afterwards, by special request, delivered under the auspices of the Young Men's Christian Association. The Doctor is a member of the Cumberland County Medical Society, and for years has been its Secretary, and served several terms as its President; also a member of the New Jersey State Medical Society, and its President in 1860, when he delivered an able address on the Progress of Medical Science. He has been a member of the American Medical Association since 1850; is an honorary member of the California State Medical Society. In December, 1839, he married Eliza Robeson Whiteley. They have four children, William, Margaret Kean, Macomb Kean, and Henry Whiteley. While on the Pacific coast, he visited the Yosemite Valley, Big Trees, and other places of interest, including Salt Lake City.

ELSNER, JOHN, M. D., of Denver, Col., was born at Leopold Stadt, Vienna, Austria, May 8, 1844. His father was a physician and, having participated in the Hungarian war of 1848, it was thought prudent for him to emigrate with his family to America. He spent one year in the city of New York, and then removed to Syracuse, N. Y. Here the subject of this sketch grew up and received his academic and classical education. His medical studies were begun in 1861, under his father, and continued under Drs. Hoyt and Cook. In 1863

he attended lectures at the Bellevue Hospital Medical College, and graduated, M. D., 1866. He attended clinics and made a very careful and thorough study of Ophthalmology, at the Ophthalmic Hospital, New York; learned auscultation and percussion from Prof. Austin Flint, sr., and microscopy from Austin Flint, jr. He rendered valuable services in the Statistical Department of the Sanitary Commission, examining many soldiers, sailors and marines of different nationalities. In April, 1866, he went to Pike's Peak. At Waterloo, Iowa, *en route*, he fell in with twenty families, having the same destination. He bought a horse and joined the company. He was elected captain of the train. They arrived at Denver, June 15, 1866, after a severe march of forty days, and much skirmishing with the Indians. Although he found eighteen or twenty physicians already located in Denver, he opened an office, and in due time was rewarded with a remunerative practice, which has grown to be responsible and profitable. His long hospital experience and studies in New York peculiarly qualified him for surgical practice, and in it he has been quite successful, having operated a number of times for lithotomy, lithotritry, exsection and resection, amputations, hernia, etc. On September 28, 1867, he was united in marriage to Lena Zalenger. They have one child, a daughter, seven years old. In 1870, he was appointed the Physician for Arapahoe County, and organized the hospital, which he attended for four years, and treated in it over three thousand indigent patients. Through his influence, in 1871, the organization of the Denver Medical Society was finally effected, after

many unsuccessful attempts had been made. This association and that of the county sent him as Delegate to the American Medical Association, which met in San Francisco that year. He enjoyed the trip, and was highly delighted with the friendships formed among the members of our profession and with the citizens of California that he met. The subject of the *Materia Medica* of Colorado has engaged his attention, and his studies have been presented in a report to be found in the Transactions of the Medical Society of Colorado for 1872. He has now in preparation a work on the Influence of the Climate of Colorado on the Lungs, with cases and their results, from an experience of ten years' practice in the state. He is a member of the Denver Medical Society, the Colorado State Medical Society, the American Medical Association, and an honorary member of the California State Medical Society.

FINDLEY, WILLIAM MARTIN, M. D., of Altoona, Pa., was born at Manor Hill, Huntingdon County, July 6, 1842. He is the son of Dr. W. R. Findley and Elizabeth F., his wife, of Altoona, who have also another son, a physician. The subject of this sketch received his education at the common schools and at the Hollidaysburgh High School. His preparatory medical studies were pursued chiefly under the direction of his father, and after attending two full courses of lectures in the Medical Department of the University of Pennsylvania, at Philadelphia, he graduated M. D., March 14, 1867. Immediately after taking his degree, he practiced a year

with his father, after which he opened an office of his own in the same place, where he still resides, and enjoys a good general practice. Although but a few years in the profession, he has published in the *American Journal of Medical Sciences* for 1874 a record of three hundred cases of obstetrics occurring in his own practice, and also a number of cases of "membranous enteritis," and other papers of interest. He was in the army in 1861 and 1862, and while in South Carolina suffered from an attack of yellow fever. The Doctor is a member of the Blair County Medical Society; of the Pennsylvania State Medical Society since 1869; the Juniata Valley District Medical Society; the American Medical Association, and an honorary member of the California State Medical Society. He represented the Blair County Medical Society at the meeting of the American Medical Association in California in 1871. This visit to the Pacific coast was also embraced as an occasion to visit the many places of interest and to extend his acquaintance among the medical men of California, for whose professional ability and hospitality he entertains a high regard. The Doctor is married, and has three children; two daughters, Anna and Bessie, and one son.

FISHER, ALEXANDER, M. D., of Chicago, Ill., was born in Lancaster, Worcester Co., Mass., August 12, 1804. He is the son of Jacob Fisher, who was a farmer, well educated and influential in his neighborhood, and served in the Legislature and Constitutional Convention of Massachusetts. Alexander received a good English education at the public schools and at

the academy in his native place. In youth he engaged in mercantile pursuits, but his fondness for study grew upon him so that after some reverses he gradually came to consider seriously the question of preparing for the study of medicine, which he systematically began in 1831, under the direction of George W. Richard, M. D., of Camillus, N. Y. He attended lectures at the College of Physicians and Surgeons at Fairfield, N. Y., and graduated in 1834. Immediately after obtaining his diploma, he became a partner of his preceptor for one year, after which he removed to Western Star, Summit County, Ohio, where he continued actively engaged in practice until 1849. The winter of this year he spent in Philadelphia, in the study of anatomy and surgery, and in attending the hospitals in that city. He then opened an office at Akron, Ohio, where he practiced with success, being much employed in surgical cases. In the spring of 1854 his health became impaired, from exposure to malaria and overwork, which finally induced him to remove to the city of Chicago. After a temporary rest he measurably regained his health, and commenced practice in that city. As evidence of the favor in which he was held in Akron, it may be stated that, in the winter of 1854, he was summoned to that place to perform the delicate operation of ligating the external iliac artery, which he tied with success. The case was reported by A. H. Agard, M. D., in the *American Journal of Medical Sciences*, April, 1856. The Doctor is a well-informed physician, and quite a successful surgeon. He has made occasional contributions to medical literature, of much interest to the

profession. In 1864 he read a paper before the American Medical Association, convened at New York, "On the Use of the Sulphites of Soda, Lime, and Magnesia, in the Treatment of Erysipelas, Hospital Gangrene, Phlebitis, and other Zymotic Diseases," which was published in the Transactions of the Association for 1865. Since that time, the sulphites have come into extensive use by the profession. Dr. Fisher is Emeritus Professor of Surgery in the Woman's Hospital Medical College of Chicago, a member of the Chicago Society of Physicians and Surgeons, and a member of the Chicago Medical Society; and has been President of both; a member of the Illinois State Medical Society; also a member of the American Medical Association since June, 1863; and an honorary member of the Medical Society of the State of California. He has been twice married, first to Louisa Dewey, of Akron, Ohio, by whom he has had six children, of whom but two are now living. His first wife died May 14, 1854. He was united in marriage to his second wife, Mrs. Clarissa B. Griswold, in October, 1855, who died September 27, 1870. The Doctor is actively engaged in the practice of his profession, and takes a great interest in everything that affects its efficiency and standing before the public.

FRISSELL, JOHN, M. D., of Wheeling, W. Va., was born in Peru, Berkshire Co., Mass., March 8, 1810. He was the son of Amasa Frissell, a thrifty farmer of Scotch descent. His mother was of English parentage, named Wilcox. They secured good educations to their six children, four sons and two

daughters. The eldest of the sons was a farmer, and the other three received collegiate educations, and represent the professions of Divinity, Medicine, and Law. The subject of this sketch, in his youth worked on the farm with his father, attending the common school in winter, from which he was advanced to the Academy in Old Hadley. He entered Williams College, in 1827, and graduated A. B. in 1831. He commenced the study of Medicine with Dr. Ebenezer Emmons, of Williamstown, whose assistant he had been in the Chemical Laboratory of Williams College for two years. In 1832 he attended lectures at the Berkshire Medical College, in Pittsfield. At the invitation of Prof. Willard Parker, he accompanied him to Woodstock, in the spring of 1833, where he became demonstrator of anatomy. He filled the same position for Professor Parker in the Berkshire Medical School. At that period it was the duty of the demonstrator to prepare the dissections for the Professor, and afterwards to recapitulate closely to the class the Professor's lecture, and to carefully superintend and instruct all those making dissections. Having continued demonstrator through the year 1834, and attending lectures, he graduated M. D. from the Berkshire College, at the close of that term. In the fall of this year he received the degree of A. M. from Williams College. He remained in Pittsfield, hearing recitations, and instructing students in anatomy during the spring and summer. In the fall and winter of 1835, he demonstrated his fourth and last course of lectures.

Dr. Frissell now removed to Wheeling, W. Va., where he arrived on the 3d of June, 1836. In pass-

ing through New York City, he purchased a set of surgical and obstetrical instruments. At first practice came to him slowly, but he occupied his spare time profitably in the study of botany, and in giving lectures on that subject in the schools of Wheeling, and in rambling with his classes over the hills and through the country, seeking flowers and specimens with which illustrate his lectures. He also indulged his taste for the geological and mineralogical sciences, by studying the rocks and minerals to be found in the vicinity of Wheeling with Drs. A. S. Todd, Townsend, and others interested in these subjects. But in a few years his time was all required to perform the labor of his increasing professional engagements.

In a commercial and manufacturing city, such as Wheeling, laborers and mechanics are exposed to numerous accidents, so that the surgical practice is very large as compared to the ordinary sickness of its population. Dr. Frissell was, therefore, early called upon to take a prominent part in such operations, which his exact knowledge of anatomy enabled him to perform with skill and success. He early became known as one of the best surgeons and most eminent physicians in Western Virginia, a reputation which he still enjoys.

In 1838, he performed his first operation for hare-lip with deformed upper jaw, and in 1839, shortly after the first operations by George McClellan, of Philadelphia, for club-foot, by the division of tendons, Dr. Frissell operated for the relief of this deformity by the same method in Wheeling.

In 1841, he commenced operating with success for

strabismus, and in May, 1846, he performed his first operation for stone in the bladder, and in 1856, he performed his first successful operation for vesicovaginalis fistula. He has operated with success for staphyloraphy, and frequently for phimosis and paraphimosis with adherent prepuce. He has performed various minor operations in plastic surgery, and, in 1871, performed one of the most extensive and successful operations of that class (in this the chin and sternum were held nearly in contact) on record. He has often enucleated or removed the eye from the orbit, and has performed nearly all the different operations known to the art of surgery upon or about that organ; and has, ever since he settled at Wheeling, operated upon such cases as presented (with few exceptions) in all the different departments of surgery.

The Doctor has never aspired to be known as a medical author, but is universally recognized as an industrious worker and a most skillful and judicious practitioner and successful surgeon. The testimony to his surgical practice recorded in the Transactions of the West Virginia State Medical Society, prepared from his notes of every-day business, will surprise most surgeons, of even large cities, who enjoy favorable opportunities for such practice.

But Dr. Frissell has been as extensively engaged in general practice as in surgery. The list of papers describing cases treated and operations performed by him are too numerous to be given even by title in the space allotted for this sketch; but they are to be found in the Transactions of the West Virginia State Medical Society. He was the first surgeon in west-

ern Virginia to avail himself of chloroform in capital operations, having used it first in November, 1850; and, although using it in thousands of cases, no untoward accident has ever occurred in his practice.

Dr. Frissell was connected with the Wheeling Infirmary during its continuance, and has been connected with the hospital which has succeeded it from the time it was established. For more than twenty years he has held the appointment of Chief Physician and Surgeon to these institutions, which as hospitals have fully supplied an urgent want in West Virginia, and also to western Pennsylvania and southeastern Ohio.

Soon after the breaking out of the war Dr. Frissell was appointed by Governor Pierpont, Medical Superintendent of the military prisoners and soldiers stationed at Wheeling. He was subsequently continued as Acting Assistant Surgeon at the same post, by the Surgeon-General of the United States Army, to the close of the war. Most of the time he had full charge of the medical department of the post. At the Sprigg House General Hospital, Dr. E. A. Hildreth during the same time served as one of the medical staff.

Dr. Frissell was also a member of the State Board of Examiners for Surgeons entering the Army during the war. The position of Surgeon for the Marine Patients at Wheeling has been filled by him for more than twenty-five years. He is also physician of the Convent of the Sisters of the Visitation, and the school for young ladies at Mount de Chantal, and to Saint Vincent's College. He was the first President

of the Medical Society of the State of West Virginia, instituted May 10, 1867. He is a member of the American Medical Association, and of the Medical Society of Ohio County, and an honorary member of the Medical Society of the State of California, and was a member of the Centennial International Medical Congress of 1876.

The Doctor was married to Elizabeth Ann, daughter of Col. John Thompson, of Moundsville, W. Va. He was accompanied by his wife to California, and both enjoyed the trip, and were delighted with the many new and cherished friendships formed among the medical men from all parts of the United States, as well as among the citizens of California.

GARVIN, LUCIUS FAYETTE CLARK, M. D., of Lonsdale, R. I., was born in Knoxville, Knox Co., Tennessee, November 13, 1841. He is a son of the late Prof. James Garvin, a graduate of Amherst College in the class of 1831, and who held the Chair of Mathematics and Chemistry in the East Tennessee University, at the time of his death in 1845. The Doctor's mother was the daughter of Dr. Luther Gunn, of Pittsfield, Mass. The subject of this sketch in youth attended the district schools in Sunderland and in Edgefield, Mass.; afterward the select schools in Sunderland, Mass., and Greensboro, N. C. He prepared for college at New Garden, N. C., and entered Amherst, where he received the degree of A. B. in 1862, after the usual course of four years. He then entered the army and served as a private for nine months in the Fifty-first Massachusetts Regiment.

He commenced the study of medicine with Dr. David N. Rice, of Leverett, Mass., and subsequently with Dr. Sylvanus Clapp, of Pawtucket, R. I. The last year of his student life was passed as Interne in the Boston City Hospital. He attended the usual course of lectures at the Harvard Medical School, and graduated M. D. in 1867. Dr. Garvin opened an office the same year in Lonsdale, R. I., where he still resides, and enjoys a full general practice in that busy manufacturing village. He is a close observer and an excellent writer, and has contributed some good articles to the medical journals; among which are an article on "Alcohol;" "Analysis of Twenty-eight cases of Mammitis; Premature Death of Great Men;" these may be found in the Transactions of the Rhode Island Medical Society; "a Case of Stroke" (*Boston Med. and Surg. Jour.*, 1876). Also an elaborate and carefully prepared paper on "the Sanitary Requirements in Factories," published in the third volume of the Transactions of the American Public Health Association. He is a member of the Rhode Island Medical Society, the Providence Medical Society, the American Medical Association, of the American Public Health Association, and an honorary member of the California State Medical Society. The Doctor is married and has three children—all daughters.

GILCREST, ROBERT SCOTT, M. D., of De Graff, O., was born at Mount Vernon, Knox Co., Ohio, August 5, 1823. His father was an officer in the War of 1812, a man of good business capacity, and was often chosen by the people of his section of Ohio

to fill places of honor and public trust. The subject of this sketch in his youth attended the district schools until sufficiently advanced to enter the Martinsburgh Academy, which he did in 1839, and after attending for some years, took a partial course at Kenyon College. May 7, 1847, he commenced the study of medicine under the direction of Dr. H. L. Thrall, of Gambier, Ohio; attended his first course of medical lectures at the Western Reserve College, Cleveland, Ohio, in the winter of 1850-51. On the close of the lecture term, by request, he went to New Albany, and took charge of Dr. Brooks's practice, during his temporary absence. Returning to Cleveland, he attended another course of lectures, and received his medical degree in the spring of 1853. April 1, of the same year, he began the practice of his profession at De Graff, where he still resides, and has been fully employed. Notwithstanding the fatigues of a laborious general practice, he manages to read and inform himself of the latest discoveries and improvements in medical science. His confidence in the power of judiciously chosen remedies is as great now as on his entry into his profession. His visit to California was made a tour of inspection for the acquisition of knowledge in the interest of his patients. While on the Pacific Coast, Dr. Gilcrest visited the Yosemite Valley, the Geysers, and most places of interest to travelers, and spent a day at Salt Lake City *en route*. He is persuaded that altitude exercises a wonderful influence upon vital function and may yet be made a valuable means to obtain relief in certain diseases. The Doctor is a member of the Logan County Medical

Society, the Ohio State Medical Society, the American Medical Association, and an honorary member of the California State Medical Society. In 1852 he was united in marriage to Philena Brooks, of Columbus, O., who died in 1854. In 1856 the Doctor married Annie B. Brooks, of De Graff; they have one child—a daughter—Fay.

GILLETT, BUCKLAND, M. D., of Franklin, Venango Co., Pa., was born at Broome, Schoharie Co., N. Y., September 18, 1807. His parents were natives of Connecticut who settled in New York State, first in Schoharie County, and then removed to Fredonia, Chautauqua County. He received a good education at the Fredonia Academy. His medical studies were begun in 1824 with Dr. S. White, with whom he read four years, and then, upon the certificate of study, was admitted to an examination by the Censors of the Chautauqua County Medical Society, and regularly licensed to practice medicine and surgery, in conformity with the laws then in force in the State of New York. In 1829 he began to practice in Titusville, Crawford Co., Pa., but, in 1834, removed to Franklin, Venango Co., where he has continued to reside to the present time. Dr. Gillett has enjoyed the confidence of this community to the fullest extent for nearly half a century, and has discharged the duties of a skillful and conscientious physician in a most acceptable manner. In 1847 he matriculated and attended lectures at Harvard University. The honorary degree of M. D. was conferred upon him by the University of Wooster, Cleveland, Ohio, in 1873.

Dr. Gillett assisted in the organization of the Venango County Medical Society, and served for two years as its President. He is a member of the Pennsylvania State Medical Society, and one of the Vice-Presidents; a member of the American Medical Association since 1869, and an honorary member of the California State Medical Society. He was President of the Rocky Mountain Medical Association in 1876. This body assembled at the house of Dr. W. B. Atkinson immediately after the adjournment of the session of the American Medical Association, when the Doctor delivered a very interesting address, which has been published in the *Baltimore Physician*. In 1832 he was united in marriage with Sarah Byles, who is still living. They have one child, a daughter, now the wife of R. L. Cochran, of Franklin. Dr. Gillett is a man of courtly manners, intelligent and communicative, and a most agreeable companion. He enjoyed his trip to California, and was active in collecting information on all possible subjects.

GOLDING, WALTER SIDNEY, M. D., of St. Louis, Mo., was born at Germanton, N. C., April 19, 1828. He is the oldest child and son of Reuben D. and Mary (Bitting) Golding, who were descendants of Revolutionary ancestors of the old "North State." At the age of ten years, the subject of this sketch was sent to the academy of Samuel Smith, Esq., in Rockingham County. At this school he prepared for "Chapel Hill Academy." After having passed through the usual routine of studies he was then sent to "Emory and Henry College," W. Va., where he re-

mained about one year. His health not being good, his friends thought it best that he should return to Chapel Hill. During his senior year his health again became so much impaired that he was taken from college and sent to Florida, where his health was regained. On his return to North Carolina, he began the study of medicine with Dr. Beverly Jones. In 1847 the Doctor was sent to Philadelphia, where he became a pupil of Dr. Thomas D. Mutter, and attended lectures at the Jefferson Medical College and clinical lectures at the Pennsylvania Hospital. He graduated M. D. at the Jefferson Medical College in 1851. Immediately after obtaining his degree, he was, through the friendly recommendation of Prof. R. J. Dunglison, appointed resident physician of the Baltimore City and County Almshouse, a position which he held for nearly two years, and discharged the duties assigned him to the entire satisfaction of the Trustees and the attending physicians. In October, 1852, he removed to, and opened an office in, the city of St. Louis, Mo., where he soon acquired a good, remunerative practice, and has resided ever since, except three years that he spent as surgeon in the Confederate Army. At the close of the late war, Dr. Golding returned to St. Louis and, in the spring of 1866, was appointed one of the Health Commissioners of the city. He has been physician to the St. Joseph's Orphan Asylum for seven years. This institution shelters throughout the year an average of two hundred and fifty male children. Dr. Golding is a man of agreeable and polite manners, and enjoys a good general practice. In 1868 the Doctor was

united in marriage to Mrs. Josephine A. Crozet, daughter of the Hon. John W. Tibbotts, and granddaughter of General James Taylor. He is a member of the St. Louis Medical Society, the St. Louis Academy of Science, the Missouri State Medical Society, the American Medical Association since 1854, and an honorary member of the California State Medical Society.

HAMILTON, JOSEPH ORMOND, M. D., of Jerseyville, Ill., was born in New Design, Monroe Co., Ill., April 2, 1824. He is the youngest son of Thomas M. and Apphia Hamilton, who removed from Hartford, N. Y., and settled at Point Harmer, at the mouth of the Muskingum river, September 19, 1796. From this place they removed to New Design, May 1, 1818. In 1831, they removed to Otterville, Jersey County, eight miles from Jerseyville, where the subject of this sketch attended the district school and acquired a fair English education. Afterwards he was for two years a student of the Ohio University at Athens. While at this place he commenced the study of medicine with Dr. Silas Parker, subsequently continued under the direction of Dr. William Blackstone. In 1845 he returned to Jerseyville, where he was associated in practice for a year with Dr. James C. Perry. He attended lectures at the University of Missouri, where he graduated M. D. in 1850. He then opened an office at Grafton, Jersey Co., Ill., where he remained one year, returning to Jerseyville, in May, 1851, and formed a partnership with Dr. Perry, which continued till the death of the latter in 1861, since which time

Dr. H. continued the business without assistance. The Doctor was an indefatigable worker, and had a large and laborious practice, from which he rarely took a day's rest. On the 25th of August, 1875, he was stricken down with paralysis, from which he has measurably recovered, but is still greatly afflicted. He was united in marriage, May 1, 1851, to Margaret Perry. They have had six children, three of whom are living—Mary, Ormond and Frank T. He is a member of and was a Delegate from the Medical Society of the State of Illinois to the American Medical Association, which met in California, in 1871; and an honorary member of the California State Medical Society. He enjoyed this trip, and made careful notes of interesting matters, to preserve his recollections of the more remarkable places and occurrences connected with his visit to the Pacific.

HARDING, MYRON HAWLEY, M. D., of Lawrenceburgh, Ind., was born in Williamson, Ontario Co., N. Y., August 7, 1810. His parents were among the earliest emigrants to Western New York. His father was for some time a captive among the Indians under command of the notorious renegade Brandt, by whom he was taken prisoner at the Wyoming massacre. The common schools were the only source from which he received his early education, and his medical pupilage was passed under the direction of Dr. W. T. S. Cornett, of Versailles, Ind. He took his medical degree at the Ohio Medical College in the spring of 1837, having practiced as a licentiate of the Dearborn County Medical Society, at Manchester,

Ind., four years previous to his graduation. After having labored in his profession for eleven years at Manchester, he removed to Lawrenceburgh, Ind., where he still resides and enjoys a large business. The active and practical life that Dr. Harding has led, together with congenital myopia that has rendered writing difficult and laborious, has not been favorable for authorship. He has, however, published a few articles in medical journals of current professional interest. In addition to his general business, he has served as United States Pension Surgeon from 1862 to the present time. Was President of Indiana State Medical Society in 1866, when he delivered a learned and able address upon the "Effects of Climate and Temperature upon Health and National Character." He has also been President of the Dearborn County Medical Society; a member of the American Medical Association since 1859, and is an honorary member of the California State Medical Society. In 1838 he was united in marriage to Lucy S. Plummer, who died in 1864. In 1865 he was joined in marriage to Mary A. Hill. He has four children living—Isadore H., Laura F., Myron Hawley, and David Arthur.

HATFIELD, NATHAN LEWIS, M. D., of Philadelphia, Pa., was born in Montgomery County of that State, August 2d, 1804. He is descended from a patriotic ancestry, his grandfather having participated in the Revolutionary war, and his father commanded a company in the war of 1812. He received the first rudiments of his education at the public schools at Trappe, Montgomery County, which was taught by F.

R. Shunk, afterward Governor of Pennsylvania. Subsequently he attended the Academy of Drs. Wylie and Engel, and then the Classical Departments of the University of Pennsylvania. His medical studies were commenced with Dr. Elijah Griffiths, of Philadelphia. He attended two courses of lectures at the University of Pennsylvania, and one at the Jefferson Medical College, where he graduated M. D., in 1826, in the first class which left that now renowned institution. He opened an office and commenced practice in the city of Philadelphia immediately after, and has continued to reside there ever since, enjoying a good general practice. From time to time he has contributed articles to the medical journals and to the Transactions of the State Medical Society, and delivered an interesting address before the Alumni of the Jefferson Medical College in 1874, on retiring from the Presidency of that body. He has held quite a number of positions of honor in medical organizations. He was for some years President of the City Board of Health. He is a fellow of the College of Physicians of Philadelphia; a member of the Philadelphia County Medical Society; of the Northern Medical Association of Philadelphia, of which he has been President; of the State Medical Society of Pennsylvania, of which he was Vice-President in 1865; of the Alumni Association of Jefferson Medical College, of which he was President in 1874; of the American Medical Association since 1848; and an honorary member of the California State Medical Society. He has throughout his half century of practice been a constant and earnest supporter of medical or-

ganizations and professional ethics. The Doctor has been twice married and has five children living; one son, Dr. Nathan H., is engaged in the practice of medicine in Philadelphia.

HEIGHWAY, ARCHIBALD E., M. D., of Cincinnati, Ohio, was born in that city, December 26, 1820. His father, John Heighway, emigrated to Ohio at an early period and embarked in banking. He served through the war of 1812. His mother was the daughter of General Mercer, of Newark, N. J., who served throughout the American Revolution.

The subject of this sketch during his youth attended the common schools and finished his academic studies in Miami University, Oxford, Ohio. In the summer of 1842 he commenced the study of medicine, under the direction of Prof. J. T. Shotwell, attended lectures in the Medical College of Ohio, and graduated M. D., in the spring of 1845. He, notwithstanding, continued his studies the following year, attending all the clinics and lectures as before, and spending much time in dissecting, and pursuing special studies in anatomy and physiology.

In the spring of 1846, he had purposed to apply for admission to the navy. But war being declared by the United States against Mexico, he at once resolved to enter the army. He was commissioned Assistant Surgeon and assigned to the First Regiment Ohio Volunteers, and accompanied the army to Mexico.

When the small-pox broke out in the army, in Monterey, in 1847, he was detached from the regiment and placed in charge of a hospital for the special

treatment of that disease. When the hospital was no longer required he was assigned to various commands; and performed the most arduous marches; and was under fire during several actions and skirmishes.

He was assigned to the United States General Hospital, Matamoras, which position he held for eight months. In the summer of 1848, he went to Vera Cruz, where he remained till August—the close of the war—when he returned to Cincinnati, having lost but six days' duty while in the service, that being caused by an attack of yellow fever, during the epidemic of that disease which prevailed in the army, in Matamoras.

In November, 1848, he went to Philadelphia, and was a constant attendant on the clinics in the Pennsylvania Hospital; also on the clinics and lectures of the University of Pennsylvania and of the Jefferson Medical College—selecting those lectures in each which most interested him. In the spring of 1849, he embarked in the special study of analytical chemistry and metallurgy, in the laboratory of Professor Booth, of the United States Mint, Philadelphia. Upon the completion of this course of study, he returned to Cincinnati and engaged for the first time in private practice, during the epidemic of cholera in 1849.

In 1852 the berth of surgeon of one of the Vanderbilt line of steamers, plying between the ports of New York, New Orleans and the Isthmus of Panama, was offered him, which he accepted. He made monthly trips to the tropics for nearly two years, with the exception of a portion of the summer of 1853, when

the yellow fever prevailed in New Orleans, in the form of the severest epidemic which had ever afflicted that city. As the ship to which he was attached was about to sail, he determined to stop off one or two trips and render all the service in his power, in relieving the numerous sufferers and the over-worked profession in that city.

In the spring of 1854, he quit the sea, and, in the following November, married Miss Josephine M., daughter of Captain J. C. Culbertson, of Cincinnati. By this union they had three sons, one of whom died in November, 1860. His wife died August 6, 1861. The Doctor was left with two young children—the care of whom prevented his going into active service in the field, but, being anxious to serve, he was assigned to duty in the General Hospital at Camp Dennison, near Cincinnati, and soon after, in one of the hospitals in the city. This service he continued for about one year, when he was assigned the duty of attending sick and wounded officers, together with their families, who were either in Cincinnati on duty or on sick-leave from the field. All medicines, dressings and appliances were furnished by the government to such cases, upon his prescriptions and requisitions.

Since the close of the war, he has visited Europe twice; the first time spending the winter of 1866–67 in Paris, visiting the various hospitals. He has traveled extensively over the North American continent, from the Isthmus to Lake Superior, and from the Atlantic to the Pacific Ocean.

The Doctor is enthusiastically attached to the study of medicine, but is not equally fond of general or

private practice, having served too long in the public service. He therefore limits his business to the minimum, and devotes his time principally in endeavoring to keep up with the advancement in science; the direction of the education of his two sons, together with the management of a large estate which he inherited from his parents.

Few physicians are more constant in their attendance of the medical conventions than Dr. Heighway. He is a member of Academy of Medicine of Cincinnati, which he represented in the American Medical Association in California in 1871; of the Cincinnati Medical Society; of the Ohio State Medical Society; of the American Medical Association, and has been since 1851; and an honorary member of the California State Medical Society.

HELM, JOHN HAMPTON, M. D., of Peru, Ind., was born at Elizabethtown, Carter Co., Tenn., April 23, 1826. He is the son of the late Dr. John C., and Amy (Hampton) Helm. His grandfather was a German, who emigrated to America, and, espousing the cause of the colonists, joined them in the struggle for independence, and after being mustered out of the service at the close of the war, removed to the southwest, and settled first in Charleston, W. Va., and afterward moved to East Tennessee. His maternal grandmother was a daughter of Maj. John Hampton, of South Carolina, who served under General Jackson in the war of 1815. The subject of this sketch received a good education, chiefly under private tutors. His medical studies were begun with Dr.

Pliny M. Crume, at Eaton, Ohio, and continued with Dr. Charles L. Avery. He attended lectures and graduated at the Medical College of Ohio, at Cincinnati, in 1847, and the same year commenced practice, in partnership with Dr. Crume, at Eaton. The years 1848, 1849 and 1850 he spent in traveling through Mexico, California, Oregon, Central America and the West Indies. On his return he resumed business with Dr. Crume, and continued actively engaged until 1860, when he removed to Peru, Ind. Here he enjoys a large and responsible practice. The Doctor has contributed a few good articles to the medical journals and medical societies. He is a member of the Indiana State Medical Society, and was its President in 1876; of the Miami County Medical Society, and its President in 1872-74; is at present a member of Peru City Board of Health; is also a member of the American Medical Association, and attended the meeting at San Francisco in 1871, and is an honorary member of the California State Medical Society. Dr. Helm was united in marriage in 1851, to Mary, daughter of Rev. Andrew Henkle, of Germantown, Ohio; she died in 1852. In 1854 he was again married to Margaret Ridenour, of Preble County, Ohio. They have three children—one daughter, and two sons living. His wife and daughter accompanied him to California. In addition to his practice, the Doctor superintends the management of his agricultural and stock-raising farms, which are situated in Miami Co., Ind., and in Champaign Co., Ill.

HEWITT, GEORGE WASHINGTON, M. D., of Franklin Grove, Ill., was born in Middleburg, Franklin Co., Pa., December 23, 1830. He is the son of G. W. and Margaret (Cronkleton) Hewitt. He received his academic education at the Green Castle Academy. His medical studies were pursued under Dr. Samuel Chew, of Baltimore, and at the same time he attended lectures at the University of Maryland, where he graduated in 1854. On the 1st of May of this year he settled to practice at Franklin Grove, and has since been engaged in a large and general professional business. He was a Delegate from the Illinois State Medical Society to the American Medical Association in 1871. This appointment induced him to make the trip to the Pacific coast, which he enjoyed very much, finding the mountain scenery grand and the extent of unoccupied territory vastly beyond his expectation. He married Miss Caroline Davis Miller, September 25, 1856. She died November 19, 1863, leaving two children, both sons—Harry and George. They are now preparing to enter the medical profession; the former having attended a course of lectures. During the late war Dr. Hewitt served as Surgeon in the Thirty-fourth Regiment Illinois Volunteers. He was in the staff of Colonel Kirke when he was made Brigadier-General, with whom he served as Acting Brigade Surgeon. He is a member of the Lee County Medical Society, and of the Illinois State Society; of the American Medical Association, and an honorary member of the California State Medical Society.

HIBBARD, JAMES FARQUHAR, M. D., of Richmond, Ind., was born at Monrovia, Frederick Co., Md., November 4, 1816. Both his parents belonged to the Society of Friends. His American ancestors came to this country with William Penn. His mother's maiden name was Wright. The early education of the subject of this sketch was at the common schools, and at Benjamin Hollowell's Classical School in Alexandria, Va. His medical preceptor was Dr. Wright. He attended medical lectures at Yale College in 1839 and 1840. Immediately after the close of the winter term he commenced practice in Salem, Montgomery County, Ohio. After a few years' practice he again attended medical lectures at the College of Physicians and Surgeons in New York, where he graduated M. D. in 1849. The Doctor attended a supplementary course of lectures in this institution during the session of 1855-56. In 1849 he was appointed Surgeon to the commercial steamer Senator, and proceeded with her, via the Straits of Magellan, to California, where he practiced with success till 1855, when he returned to the Atlantic States, and opened an office at Dayton, Ohio, but shortly afterward removed to Richmond, Ind., where he has since resided, and has been in the enjoyment of a large and responsible practice. Since 1875 he has been limiting his professional labors, other cares and interests requiring much of his attention. His extensive general information, as well as his eminent qualifications as a physician, placed him easily at the head of the profession, and his high character and exemplary habits make him the favorite medical

adviser in most critical cases, as well as in public and benevolent projects and enterprises. Early in his professional career he assisted in the formation of the Ohio State Medical Society. He was one of the chief organizers of the Indiana State Medical Society, and the Wayne County Medical Society. He has been a laborious and eminently efficient member of the American Medical Association since 1863, and has filled most of its offices, and made a number of valuable reports, which may be found in its transactions. He has contributed many valuable papers to the medical journals and to the transactions of the societies. He held the chair of Physiology and General Pathology in the Medical College of Ohio in 1861; was Vice-President of the American Medical Association 1865; President of the Indiana State Medical Society 1863; president of the Miami District Medical Society in 1873-74; and is an honorary member of the California State Medical Society, holding membership also in other organizations. In 1842 Dr. Hibbard was married to Nancy D. Higgins, who died in 1846, leaving one son, Elgar Grant. Married Catherine Leeds in May, 1856, who died in October, 1868, leaving one son, Wilton Leeds. He married his present wife, Elizabeth M. Laws, April 20th, 1871. She accompanied him on his trip to California to attend the meeting of the American Medical Association. This, his second visit to California, was made under more agreeable circumstances, and in a far more comfortable manner than his first, sixteen years previously—the Pullman car has been substituted for the emigrant train, the only mode of traveling through

this region during the early years of the gold excitement, and it is surprising to see how closely the railroad follows the emigrant trail and stage road. And, besides, this was a wedding trip, when the world looks rosy. The Doctor was very entertaining, giving much desirable information to his fellow-passengers. He is what might be called a self-made man, full of exact information on almost every subject. He was so circumstanced in youth that he had to provide for his own education, and to make his way unaided in the world. He has traveled much, is a good observer, and is familiar with the motives which actuate human nature in every rank of life. He served two years in the Ohio Legislature—1845-47. His residence in California in the early days of its settlement, and during the greatest gold excitement, also afforded him an ample field for the study of character as well as for the acquisition of fortune. In 1869 he made a trip to Europe, which was protracted into the following year, and extended to parts of Asia and Africa. The Doctor is a clear, logical thinker, a fluent speaker and a good writer; and it is to be hoped that he will favor the profession with his observations in a very extensive practice. He has contributed many articles to the medical journals and to the Transactions of medical societies.

HILDRETH, EUGENIUS AUGUSTUS, M. D., of Wheeling, W. Va., was born in that city, September 13, 1821. He is the son of Ezekiel Hildreth, who was a graduate of Harvard College in 1814. His mother was the daughter of Jonathan Zane, who with

his brother first settled Wheeling, which they laid out in city lots in 1793. This family is quite noted in American history for literary, professional and scientific attainments. The subject of this sketch received his preparatory education from his father, and completed his academic studies at Kenyon College, Ohio. In 1840 he commenced the study of medicine with Dr Thomas Townsend, of Wheeling. In 1842 he attended lectures at the Medical College of Ohio, at Cincinnati; continued his medical studies under the preceptorship of Dr. John T. Shotwell, and attended his second course of lectures the following winter, graduating M. D. in 1844. The same year he passed a competitive examination for the position of Resident Physician of the Commercial Hospital and Lunatic Asylum of Ohio, to which he was appointed and served one year. He then opened an office in his native place, where he has been uninterruptedly engaged in full practice up to the present time. The doctor, as has been stated, is descended from a stock of educated, vigorous thinkers, authors and professional men. He has himself a well-trained mind, and is quite familiar with the natural and physical sciences. During our trip to California he was one of the most careful observers of the physical peculiarities and geological configuration of the country over which the Pacific Railroad is built.

He also noted the evidences of climate by taking thermometrical and psychrometrical observations, and noted the trees and other vegetable growths, the trend and degradation of rocks, the cañons and deeply-worn water courses, etc. During his visit he wrote for the Wheeling *Intelligencer* a series of six

letters, signed "Spec," descriptive of the route and the more notable incidents of the trip. In 1850 the Doctor contributed an article to the *Western Lancet* on "The Introduction of Ice into the Uterus in Obstetric Hæmorrhage," with a number of cases, having first practiced this mode in 1846. He was a member of the State Board of Examiners for Surgeons seeking for appointments in the army. He made a report on "Climatology and Epidemic Diseases of Western Virginia," to the American Medical Association in 1868, and a second report on the same subject in 1872. He also made a report on "The Topography, Meteorology, Climatology and Epidemic Diseases of Ohio County, West Virginia," to the State Medical Society, 1869, and a second report on the same subject. (Transactions of West Virginia State Medical Society.) His contributions to the State Medical Society are too numerous to be referred to even by title; but his address as President, and his report on "The Medical History and Biography of the Profession of Wheeling for the past Hundred Years," are valuable. He is a member of the Wheeling and the Ohio County Medical Societies, of which he was President in 1875; has been a member of the American Medical Association since 1850; of the West Virginia State Medical Society since its organization, and is an honorary member of the California State Medical Society. As one of the Directors, he organized the West Virginia Hospital for the Insane in 1864-65. He is President of the Wheeling Board of Education, and was a Director of the West Virginia Penitentiary from 1868 to 1872. Dr. H. has a turn for invention, and has devised a number

of mechanical appliances of use in his profession. While Resident Physician in the Cincinnati Hospital he made a copy or working model of Prof. John Locke's "table galvanic battery," for use in the hospital. His instrument even excelled the Professor's, as it required water alone in the cells instead of acids, and was sufficiently powerful for all practical purposes. This instrument was purchased by the trustees for use at the hospital. He has always made the splints and surgical appliances required in his practice. As an evidence of his mechanical skill and genius in this direction, once, upon a wager with Dr. S. P. Hullehan, he made a full set of teeth, mounting them on a gold plate, for a lady, which were pronounced equal to the best, and are at this writing still doing good service for their owner. He has devised a speculum with parallel bars that presents some new features, and may prove on trial to have advantages over those in use. In 1851, he was united in marriage to Susan Lambdin McMechan. They have five children. The Doctor is an admirable type of our best physicians, combining a good education, enthusiasm, and devotion to the duty not only of attention to the sick, but of acquiring information and of keeping abreast of the latest improvements in the art of medicine.

HILL, NATHAN B., M. D., of Minneapolis, Minn., was born in Randolph County, N. C., May 13, 1817; died of apoplexy, at St. Paul, Minn., February 5, 1875. His early education was received at the schools of Ashboro and at the Friends' School at

New Garden, N. C. Subsequently, he attended Haverford College, near Philadelphia, Pa. His office medical studies were pursued in North Carolina, but he attended lectures at the Jefferson Medical College, session of 1842-3. He then returned home and commenced to practice in his native State. He attended a second course of lectures at the Ohio Medical College, Cincinnati, in 1848, and graduated M. D. at the close of the session. In the spring of 1850, he visited the West, with a view to settling there, but returned to North Carolina, where he secured a good practice. On the breaking out of the war, in 1861, he at once removed with his family to Minneapolis, where he acquired a large and lucrative professional business. He was one of the incorporators of the city of Minneapolis, and held a seat in the Common Council for three years. When the two cities, Minneapolis and St. Anthony, were consolidated, he was reelected to the Council and served one year. At the time of his death, he was President of the Minnesota State Medical Society, and was seized with paralysis shortly after concluding an admirable address at the opening of the annual meeting of the society, which met, in 1875, at St. Paul. He was actively connected with all the medical organizations of the State, that had in view the advancement of the profession and the promotion of the public health. He was a member of the Hennepin County Medical Society, and for three years had been its president; of the American Medical Association, and an honorary member of the California State Medical Society. He was one of the original members of the State

Board of Health, and gave much aid to secure its organization. He attended the meeting of the American Medical Association in California, in 1871, as delegate from the Minnesota State Medical Society. He greatly enjoyed his visit to the Pacific. The Doctor was thoroughly in love with his profession, and deserves the grateful remembrance of his medical brethren.

HILLIARD, JOHN FREDERICK, M. D., of Evansville, Ind., was born in Vanderburgh Co., Ind., in 1836. His early education was at the public schools, preparatory to entering Asbury University, of Indiana, where he took a full course, graduating A. B. in 1858, and subsequently received the degree of A. M. He then commenced the study of medicine, and after attending the usual course of lectures, graduated M. D. at the Cincinnati College of Medicine and Surgery in the spring of 1861. Shortly after this, he began to practice his profession at Millersburgh, Warrick county, where he resided until the fall of 1867, when, after taking five months to review medical practice and method of diagnosis at the schools and hospitals of Philadelphia, he removed to Evansville, where he now resides and enjoys a large general business. He is a member of the Evansville Medical Society; of the Drake Medical Society; of the District Medical Society, and of the American Medical Association, and an honorary member of the California State Medical Society.

HOLTON, HENRY DWIGHT, M. D., of Brattleboro, Vt., was born in Rockingham, Windham Co., Vt., July 24, 1838. His early education was at the public schools, and then at the Seminary at Saxton's River. His medical studies were begun in 1857, under the superintendence of Dr. J. H. Warren, of Boston, Mass., and concluded with Dr. A. B. Mott, of New York. His medical degree was received from the University of New York, in 1860. In the same year he opened an office in Brooklyn, E. D. (formerly Williamsburg), N. Y., and served as one of the physicians of the Williamsburgh Dispensary while residing there. In November of the same year he removed to Putney, Vt., and in 1867 to Brattleboro, where he now resides and enjoys a large and responsible practice. His visit to California was one of pleasure, and aroused in him new enthusiasm for his profession, admiration for the vastness of our country, and respect for the energy and enterprise of our people who are bringing its wonderful resources into practical use. The Doctor has contributed some valuable papers to medical journals, and to Transactions of medical societies, and has recently edited "Mott's Medical Clinics," which is destined to have a considerable sale. An article describing his apparatus for keeping in place sternal dislocations of the clavicle is in Transactions of the American Medical Association, (Vol. 16), and an article on Diphtheria, (*idem*, 1866), are contributions which show research and ability. Dr. Holton is a member of the Vermont Medical Society, and was its President in 1872; was President of the Connecticut Valley Medical Association in 1867, and

had been its Secretary for five years; a member of the American Public Health Association, and a corresponding member of the Boston Gynæcological Society; a member of the American Medical Association; an honorary member of the California State Medical Society, and of the British National Association. He was formerly Surgeon of the Twelfth Vermont Militia. He has been a Trustee of the University of Vermont since 1873, and is now Professor of Materia Medica and Pathology in the same institution; also Medical Examiner to the Asylum for the Insane of Vermont. He was united in marriage in 1862 to Ellen J. Hoit. They have one child living—Edith H. The Doctor is a vigorous orator, a clear thinker, and well up in a knowledge of the most approved and latest methods of diagnosis and means of relieving human suffering.

HOVEY, ARIAL BURNHAN, M. D., of Tiffin, Ohio, was born in Albany, Orleans Co., Vt., February 9, 1829. He received instruction in the public schools of the neighborhood and afterward at Oberlin College, Ohio, where he acquired a good academical education. His medical studies were commenced with Dr. Homer Johnson, of Oberlin, in 1848, but, moving to Cleveland the following year, he entered the office of Prof. H. A. Ackley, of that city. He attended the usual course of lectures at the medical department of the Western Reserve College, at Cleveland, and graduated M. D. in 1851. Shortly after obtaining his degree, he settled to practice in Tiffin, in Seneca County, where he still resides, and is

actively employed in general practice. He is a member of the Seneca County Medical Society, and represented it at the meeting of the American Medical Association in California, in 1871; a member of the Ohio State Medical Society; of the American Medical Association, and an honorary member of the California State Medical Society. The Doctor married Susan Boyce. They have one child living—a daughter—Lola, married to C. H. Von Fine, of Sandusky.

HUGHES, JOSEPH CLOKEY, M. D., of Keokuk, Iowa, was born in Washington County, Pa., April 1, 1821. He was educated at Jefferson College, Canonsburgh, Pa. His medical degree was received from the University of Maryland, in 1845. In May of this year he opened an office in Mount Vernon, Knox Co., Ohio, and met with good professional success. Being ambitious for a larger field, he removed to Keokuk, where he established himself in 1850. Here he has been fully employed in attending to the duties of a large practice of medicine and surgery, and also as teacher in the Medical College. He has always taken an active interest in medical organizations, and has frequently attended the meetings of the American Medical Association, of which he was Vice-President in 1867. Neither distance, expense, nor the apprehension of fatigue deterred him from attending the meeting at San Francisco, in 1871, and taking part in the deliberations of the Convention. After the adjournment of the meeting, he visited Yosemite Valley, the Geysers, San Bernardino, and other localities of interest to strangers in California. He also stopped

for a few days at Salt Lake City *en route*. The Doctor is a fluent, magnetic speaker, and a good writer. He was one of the editors of the *Iowa Medical Journal* in 1856-57. He has enjoyed (what falls to the lot of but few surgeons,) the opportunity of performing the operation of cutting for stone four several times upon the same patient, always with success. He has performed this operation in all fifty times, with but five deaths. He is an active member of the American Medical Association, since 1853, and an honorary member of the California State Medical Society. He was a delegate from the former to the scientific associations of Europe, in 1866, where he, with his family, spent most of the year in travel and scientific pursuits; was also a member of the Centennial International Medical Congress of 1876. As an evidence of his popularity with the profession of his State, he has twice been President of the Iowa State Medical Society. He is now, and has been for twenty-six years, Professor in the College of Physicians and Surgeons of Keokuk, and has been for twenty-three years Professor of Surgery and Dean of the Faculty. He was Surgeon-General of Iowa during the late war. In September, 1848, he was united in marriage to Amanda T. McGugin, of Mount Vernon, Ohio. They have four children living—Joseph C., a physician, Ellen E., David L. and John A. The Doctor was accompanied to California by his lady, and they greatly enjoyed the trip, spending some time in sight-seeing, and partaking of the hospitality of the profession and the citizens of San Francisco.

HUNT, EBENEZER KINGSBURY, M. D., of Hartford, Conn., was born at Coventry, Toland Co., August 26, 1810. He was the son of a physician, who was also born in Coventry, and practiced medicine there for fifty years. His mother was the daughter of Eleazer Pomeroy, of this town, and lived to the age of eighty-six years. His preparatory education was in the public schools. Subsequently he entered Yale College, where he graduated in 1833. He studied medicine, and graduated at the Jefferson Medical College, Philadelphia, in 1838. In April of this year he commenced to practice in Ellenville, Ulster county, New York, but left there in the fall of 1839, and opened an office in Hartford, where he has ever since resided. Dr. Hunt translated from the French Esquival's Treatise on Insanity, which was published by Lee and Blanchard in 1842. During the two years 1864 and 1865 he was President of the Connecticut Medical Society, and his addresses, on the occasion of these annual meetings, were published in its Proceedings; that of the former year being entitled, "Inert Practice in Disease," that of the latter, "Public and Benevolent Institutions and Movements with which the Society had been Identified." He has been a member of the American Medical Association since 1860, and is an honorary member of the New York State Medical Society, and of the California State Medical Society. He enjoyed his visit to California, and was a highly interested and appreciative traveler. The Doctor is united in marriage to Mary C. Crosby. They have two children living, both daughters.

HURLBUT, VINCENT LUMBARD, M. D., of Chicago, Ill., was born at West Mendon, Monroe Co., N. Y., June 28, 1829. While quite young, his father, Dr. Horatio N. Hurlbut, removed to Jefferson, Ash-tabula county, Ohio, where he remained until about 1851. In youth the subject of this sketch received a good general education, and then studied medicine with his father. His first two courses of medical lectures were at the Cleveland Medical College, 1849-50, and 1850-51. The next course was at the Rush Medical College, Chicago, 1851-52, where he received his degree of M. D. He at once opened an office in Chicago, where he has continued to reside, and now enjoys a large and exacting family practice. For some years he has served as Assistant Surgeon to the Woman's Hospital of the State of Illinois. He is a member of the Cook County Medical Society, and one of its Vice-Presidents, and of the Illinois State Medical Society. He has been a member of the American Medical Association, since 1863, and is an honorary member of the California State Medical Society. The Doctor is Most Eminent Grand Master of the Grand Encampment of Knights Templar of the United States; an active member of the Northern Supreme Council of the Ancient Accepted Scottish Rite, Thirty-third Degree. He is an enthusiast in his admiration for and devotion to Masonry. He has been closely identified with the creation and growth of Apollo-Commandery, No. 1, Chicago, now numbering over five hundred Sir Knights. In 1871, at the regular session of the Grand Encampment in Baltimore, he was elected to the office of Grand General-

issimo. In 1874, at the session at New Orleans, he was elected to the office of Deputy Grand Master, and has now reached the highest place in the gift of the order, having been elected to the position of Grand Master at the Twentieth Triennial Conclave, in Cleveland, August 30, 1877. His genial disposition and habitual courtesy render him a welcome guest in every circle, and secure for him troops of friends, and a large professional business.

IVES, CHARLES LINNÆUS, M. D., of New Haven, Conn., was born in that city June 22, 1831. On his father's side he is the fourth in direct descent who have been physicians, and he is the grandson of Dr. Eli Ives, one of the country's most eminent physicians, who was honored with the Presidency of the American Medical Association. The subject of this sketch was fitted for college at Hopkins Grammar School, New Haven; entered Yale College in 1848, and graduated in 1852. He attended lectures at Jefferson Medical College, Philadelphia, where he graduated M. D. in 1854. He attended lectures the following winter at the College of Physicians and Surgeons, New York; and was Resident Physician in Bellevue Hospital for a year and a half. In May, 1856, he opened an office in New Haven, and practiced with success and growing reputation. He was honored with an election to the Vice-Presidency of the American Medical Association at the meeting in San Francisco. He occupied the chair of Theory and Practice of Medicine in Yale College from 1868 to 1873, when he resigned on account of

failing health; was subsequently elected to the chair of Diseases of the Mind and Nervous System in the University of New York. To recruit his health and more thoroughly to prepare for his new professorship, a year and a half was allowed him for travel, and for study in Europe. But his health remaining poor, he was compelled to resign this position also. Returning to the United States, he has since resided much of the time in Minnesota. While there, in the winter of 1875-76, he took the pastoral charge of a Congregational Church of one hundred and twenty members, at Excelsior, for three months, till failing strength again compelled his retirement. Besides his medical theses and some contributions to medical literature, the Doctor has given much attention to Bible studies. In 1871 he republished with notes Constable's Essay on Future Punishment. In 1873, in this country, and in 1874, in England, he published an essay of his own, on "The Bible Doctrine of the Soul." Although published privately, twelve thousand copies have been called for, in addition to those gratuitously circulated. A new edition, entirely rewritten, is now being issued by the publishing house of Claxton, Remsen and Haffelfinger, Philadelphia, in which he more fully argues for the biblical conception of Man's Nature and Destiny. Dr. Ives is united in marriage to Bessie W. Salter, of Waverly, Ill., but a native of New Haven. She accompanied her husband to California in 1871. They made excursions to the Big Trees, the Yosemite Valley, the Geysers, Lake Tahoe, and other places of note, and made themselves very agreeable to their traveling companions.

JACKSON, JOHN DAVIES, M. D., of Danville, Ky., was born near that place, December 12th, 1834, and died there December 8th, 1875, not completing by a few days the forty-first year of his age. His ancestors for several generations were residents of Kentucky. His mother died in 1849; and his father survived the Doctor one year.

The subject of this sketch graduated in 1854 at Centre College, in Danville, one of the oldest and best educational institutions in the Southwest. While pursuing his academic course he exhibited much enthusiasm, and devoted himself to his studies with untiring application.

Having determined to devote himself to the study of medicine, immediately upon his graduation he began his professional studies under the supervision of his uncle, Dr. Thomas W. Jackson, of Danville. He brought to the study of medicine a mind of rare philosophical and analytical power, possessed of quick perception, ready memory, and thorough training, and a familiarity with the classics and general literary topics. In the autumn of 1854 he matriculated in the medical department of the University of Louisville, and there attended his first course of lectures. After spending the following summer with his uncle, during which time he pursued his studies with great fidelity and success, he matriculated at the medical department of the University of Pennsylvania, where he graduated in 1857. His thesis was entitled *Vis Conservatrix et Medicatrix Naturæ*, and gave striking evidence of close study and careful observation. The literary merits of this essay are highly creditable.

Immediately upon graduating, Dr. Jackson returned to his native place, and opened an office for the practice of his profession. By means of his collegiate education, early-acquired studious habits, quick perception, retentive memory, and indefatigable industry, he was enabled to enter upon the practice of his profession familiar with the principles which were to guide his action, and thoroughly conversant with the state of medical and surgical science of the day.

He entered upon his medical career with a distinct plan, high purposes and unlimited ambition. From the outset to the close of his professional life he despised the artful and obsequious methods occasionally resorted to as a means for gaining friends and employment. He remarked to a friend, when speaking of the first years of his practice, that he had determined to deserve success, and never to seek it in a manner unbecoming the dignity and honor of a physician.

With studious habits, modest demeanor, and retiring disposition, Dr. Jackson was slow to extend his acquaintance beyond that acquired in youth. His social visits were very few, and his entire time was devoted to his profession. The probationary years, so often spent by young physicians in bemoaning their misfortunes, were utilized by him, and spent in constant labor. With persevering industry, he gave himself to the study of the text-books, as well as special treatises and periodicals which he possessed. He steadily worked his way into practice, his services being sought as his skill and ability became recognized by those around him. When the great civil war broke out between the States, he had established a good and rapidly-increasing practice.

Dr. Jackson never took an active part in public affairs, was averse to engaging in political controversies, and seldom talked upon such subjects; yet he was a man of chivalric feelings, positive opinions, and firm convictions. The war once begun, he left his home and a growing practice, and entered the Confederate Army as a Surgeon. During the first years he was with the Army of the Tennessee, and afterward with the Army of Northern Virginia. His rank was that of Surgeon, and his duties were active and laborious during the whole of his term of service. During the greater portion of the time he acted as Brigade or Division Surgeon.

As a medical officer, he served with honor and distinction; his labors were actuated by patriotism and a high sense of responsibility, and his duties were discharged with signal judgment and fidelity.

Immediately after the surrender at Appomattox, he returned to Danville, and resumed his business there. With characteristic energy and industry, he began to collect a library, and gave himself up entirely to the study and practice of his profession. He was not long at his old home until his time was again fully occupied professionally. In a few years he collected around him a choice medical library, and being an industrious, rapid and exhaustive reader, possessing a most retentive memory, he soon became by common consent the most scholarly member of the profession in Central Kentucky, if not in the whole State.

In order to acquire more knowledge and to perfect himself in certain special departments, he spent the

winter of 1869-70 in the city of New York. In the spring he returned to his home, and resumed his labors there, which in a short time became quite arduous. The demands for his services now came from a wider circle and, indeed, from all parts of the State, which, with the extensive reading and other literary work he performed for the State and County Medical Societies, and the attention he gave to his office pupils, fully occupied his time with responsible and exhausting labor. Like all professional men who accomplish a great deal, he knew how to systematize time, and make use of the minutes. He was punctual himself, and demanded the same of others.

In 1871, he attended the meeting of the American Medical Association at San Francisco, Cal., as a Delegate from the Kentucky State Medical Society. After the sessions of the Association he visited the Yosemite Valley, the Geysers, the Big Trees, and other places of interest on the Pacific Coast.

As his reputation became more extended, and his high professional attainments more widely known, his instruction was sought by many young men preparing to enter the medical profession. He was the most capable and thorough office-preceptor I have ever known. He imparted instruction to his pupils by recitations, dissections, demonstrations, and oral instruction; and by his own exemplary conduct taught them medical ethics. He elicited the profound respect and admiration of his pupils, and inspired them with enthusiasm in their studies. He made knowledge of the classics, a thorough English education, and acquired habits of study, indispensable prerequisites for admission to his office as a pupil.

In 1872, with a view of further perfecting his knowledge of medicine and surgery, and to obtain much needed rest, he visited Europe, and by means of letters of introduction and his gentlemanly deportment, he made the acquaintance of many of the prominent teachers and practitioners of the Old World, and by personal observation acquainted himself with the most recent advances in medical and surgical science. As a Delegate from the American Medical Association, he attended the meeting of the British Medical Association at Birmingham. Returning home late in the autumn, his time was at once fully occupied with general practice, consultations and surgical operations.

Very soon after his return, he undertook the translation of Farabeuf's "Manual on the Ligation of Arteries," which he accomplished in the most creditable manner, and soon afterward the work was issued in the best style of the Lippincotts. He also prepared and published an admirable sketch of the life of Ephraim McDowell, and urged upon the profession the propriety of recognizing, in some suitable manner, his claims for respect and honor as the Father of Ovariectomy, and contributed liberally to the measure. The movements now in progress under the auspices of the American Medical Association and the Kentucky State Medical Society, to do honor to the memory of McDowell, by the erection of a monument or the endowment of a prize, are almost entirely due to Dr. Jackson's foresight and labors in this direction.

In 1873 he was invited to deliver the address before the Alumni of the University of Pennsylvania, but

the condition of his health prevented his acceptance. While suffering from a severe cold, in April of this year (1873), he made a post-mortem examination, as was frequently his custom, and received some accidental scratches upon a finger, from which his whole system became infected. He suffered intensely with inflammation of the entire hand and arm, and was confined to his room for some time with high febrile action. From this time he never regained his health. Beginning with laryngitis and bronchitis, the morbid process involved the parenchyma of the lungs, and, after a painful illness, extending over two years, he finally succumbed.

In June, 1874, he attended the meeting of the American Medical Association in Detroit, when the seriousness of his condition was so apparent as to attract the anxious attention of his friends in the association. At the urgent solicitation of these friends, he proceeded at once to New York, and sought the advice of gentlemen of eminent authority in pulmonary diseases. By their direction, he spent that summer in the North and the winter following in Florida. In April, 1875, with strength somewhat improved, but with indubitable evidence of extensive invasion of the lungs by the lesions of phthisis, he returned from Florida to his native State. He reached Louisville, as was his desire, in season to attend the session of the American Medical Association in that city. But he contracted on the journey a severe cold which, super-added to his other grave troubles, completely prostrated him. He was, therefore, confined to his room during the entire session of the Association. But he

was the recipient of the most tender attention from his numerous friends; resolutions of sympathy and respect were tendered him by the association, and he was elected its First Vice-President for the ensuing year, an honor most worthily bestowed.

Returning to his home at Danville, he received every mark of affection and esteem which loving friends and a grateful community could bestow. After a summer and autumn of much suffering, he sank calmly and resignedly to rest in the early winter. He died on the 8th of December, 1875.

In accordance with his request, he was buried in a simple and unostentatious manner at Danville, the place of his birth and the scene of his devoted labors. We are informed that, with each returning spring, his grave is covered with floral tributes, placed by the loving hands of those who appreciated his noble life and beautiful character. Sentiments of respect and sorrow were embodied in appropriate resolutions by the medical societies which he adorned, and the medical journals, whose pages he had enriched by his scholarly contributions, paid high encomiums to his character and abilities.

Dying at an age when his influence was most extensive and his attainments most thorough and complete, and therefore of the greatest importance to the community, we can scarcely estimate the loss which they and the profession in America have sustained. One who is generally conceded to stand in the first rank of the profession has said of him: "Of noble nature morally, he had more promise of intellectual distinction than any young member of our profession with whom I have come in contact."

In summing up the character of Dr. Jackson, he must be accredited with superior talents, extensive learning and practical knowledge, towering ambition, untiring industry, a definite aim in life, undeviating fidelity to his profession, and in every respect a pure and elevated character. He was an able thinker, a careful observer of men and things, a model general practitioner of medicine, and possessed of a philosophic mind capable of vast and varied labor.

As a practitioner of medicine he was courteous and kind, and he was eminently a charitable man. He brought to the bedside of his patient the most advanced knowledge of medicine; and with the extensive practical information which he possessed and used, with wonderful tact and aptitude, with superior judgment and clear ratiocination, and with an inspiring presence, he exerted an influence for the welfare of his patients which is seldom equaled.

He repeatedly performed the most important operations in surgery with eminent success; as a surgeon he was prompt, deliberate and dexterous. He enjoyed to a wonderful degree the confidence and admiration of those who came under his professional care.

As a writer, he was clear, concise, and elegant. No one can read his essays without being struck with the extent of his information, and his intimate acquaintance with the classics as well as medical literature.

In his relations with his fellow-practitioners he was obliging, generous and ethical. So far as can be learned unethical conduct was never imputed to him, and his high honor and integrity were conceded both by his rivals and his enemies, if he had any of the latter.

His influence was ever used for the advancement of honorable medicine, and it was his constant purpose to elevate his calling in the estimation of the public. He respected his avocation, and during his career never neglected an opportunity to indicate, both by precept and example, that a beneficent calling such as the healing art should be regarded by the public otherwise than as a trade. In short, he respected, honored and adorned his profession.

He was one of the founders of the Boyle County Medical Society, and of the Central Kentucky Medical Association; a member of the Kentucky State Medical Society, and of the American Medical Association; a corresponding member of the Obstetrical Society of Louisville; a member of the Gynæcological Society of Boston; an honorary member of the California State Medical Society, and of the British Medical Association.

The following are some of his contributions to medical literature:

"Rhigolene." *Western Journal of Medicine*. Republished in *Journal of Pharmacy*, Philadelphia, 1866.

"Trichiniasis." *American Journal of the Medical Sciences*, January, 1867, p. 82.

"Epistaxis." *Western Journal of Medicine*.

"The Inoculability and Transmissibility of Tuberculosis." *Transactions Kentucky State Medical Society*, 1868.

"A Case of Varicella, with some commentaries on the Identity of Varicella and Variola." *Richmond and Louisville Medical Journal*, vol. vii., 1869, p. 20.

"A Case of Tetanus treated with Calabar Bean—Death." *Ibid.* vol. viii., p. 260.

"Gunshot-Wound of Bladder and Rectum—Recovery of patient under remarkable circumstances." *American Journal of the Medical Sciences*, January, 1869, p. 281.

"The Black Arts in Medicine." Cincinnati. Robert Clarke & Co. 1870.

"Lessons from the Medical Clinic at the Hôpital de la Charité," given by S. Jaccoud—translation. *Ibid.*, vol. ix., 1870, p. 197. The same continued in vols. ix., x., xi., xii. and xiii.

"Loose Cartilages in the Knee-joint and the Operation for their Removal," with a case. Cincinnati Lancet and Observer, vol. xiv, 1871.

Medical Office Pupilage. Transactions of Kentucky State Medical Society, 1871.

"Agoraphobia." Clinic, Cincinnati, 1872, referred to in several European journals.

"Critique on Lister's Germ Theory, and the use of Carbolic Acid as an Antiseptic in Surgery." Richmond and Louisville Medical Journal, vol. xiii., 1872.

"Hygiene." Transactions Kentucky State Medical Society, 1872.

"Biographical Sketch of Ephraim McDowell." Richmond and Louisville Medical Journal, 1873.

"Blood-letting." Nashville Journal of Medicine and Surgery.

"Ligature of Arteries," by Dr. L. H. Farabeuf—translation. Philadelphia. J. B. Lippincott & Co. 1874.

"Tracheotomy in Diphtheria and Croup," with two cases. Richmond and Louisville Medical Journal, vol. xvii., 1874.

"In the death of Dr. Jackson," says one of his biographers, "science has lost a devoted follower, the medical profession an earnest laborer, society a valued member, and the State in which he lived one of its most useful citizens."

JANES, HENRY, M. D., of Waterbury, Washington Co., Vt., was born in that place, January 24, 1832. He is the son of Hon. Henry F. Janes, who was a member of Congress from 1834 to 1837, and State Treasurer of Vermont from 1838 to 1841. His grandfather on his mother's side was Hon. Ezra Butler, the second settler of Waterbury, a member of Congress from 1813 to 1815, and Governor of the

State in 1826-28. The Doctor received his academic education at Morrisville and at St. Johnsbury Academies, and other educational institutes in the State. His medical studies were commenced in 1852, at Waterbury, under the guidance of Dr. J. B. Woodward. He attended his first course of medical lectures at Woodstock College, in 1852, and two courses subsequently at the College of Physicians and Surgeons, in New York, where he graduated M. D. in 1855. The same year he was appointed Assistant, and, afterward, House Physician in Bellevue Hospital, New York City. In 1856 he went into practice at Chelsea, Mass. The following year he returned to Waterbury, where he soon acquired a good professional business. In 1861 he entered the army, as a Surgeon of the Third Regiment Vermont Volunteers, with which he served until 1863, when he resigned, to accept the commission of Surgeon, United States Army. In 1865 he was breveted Lieutenant-Colonel. The greater part of his military service was spent in hospital duty. In the fall of 1862, he was in charge of a hospital at Burkettsville, and, the following winter, at Frederick, Md; in the spring of 1863, of the hospitals of the Sixth Army Corps; in the summer and fall of 1863, of the army hospitals in and about Gettysburg, Pa., including the Letterman General Hospital, in which were placed about two thousand of the most severely wounded, collected from the Gettysburg battle-field, with a view of studying the statistical results of treatment of fracture and amputations. In the winter and spring of 1864, of South Street General Hospital, Philadelphia; in the summer of 1864, in charge of the hos-

pital-steamer *State of Maine*; in the fall of 1864 and until the close of the war, in charge of Sloan General Hospital, at Montpelier, Vt. He left the army in 1866, and, after spending the remainder of the year in New York, making a special study of injuries to the bones and brain, he returned, in 1867, to Waterbury, where he has been actively engaged in practice until the present time, excepting the year 1874, a portion of which he spent in traveling in Europe. His practice is large in the treatment of nervous diseases, in surgery, and consultations with neighboring physicians. In 1869 and 1870 he published, in the Transactions of Vermont Medical Society, a paper on the treatment of gunshot-fracture, especially of the femur. In 1871, 1872 and 1873, he published papers on some of the incidents following amputations; in 1874, on amputations at the knee-joint. In 1877, he wrote a paper on Spinal Hemiplegia. He is a member of the Washington County Medical Society, and of the American Medical Association; of the Vermont State Medical Society, of which he was President in 1870, and which he represented at the meetings of the American Medical Association in 1860, 1866 and 1871; of the Massachusetts Medical Society, and an honorary member of the California State Medical Society.

JOHNSON, JOHN BATES, M. D., of St. Louis, Mo., was born at Fair Haven, Bristol Co., Mass., April 26, 1817. His father was a shipping-merchant, a native of Skein, Norway, who came to America from Amsterdam, Holland, in 1799, and settled in Massachusetts. He continued in the foreign shipping busi-

ness until 1832, when he became largely interested in the manufacture of cotton. The Doctor's mother was the daughter of Captain Bates, an officer of the Revolution, and served under the immediate command of General Lafayette, whose friendship and confidence he enjoyed to the day of his death.

The subject of this sketch entered the Fair Haven Academy at the age of ten years, having previously been well prepared by a private tutor. Among his teachers in this institution was the celebrated lawyer and poet, Albert Pike. He also spent one year at the Friends' Academy in New Bedford, and had here as one of his teachers Dr. Henry Lee, who afterwards became Bishop of Iowa. Having through these advantages been well prepared to engage in the higher branches of a University education, when about to enter Harvard his plans were disarranged by the sudden death of his father.

Being the oldest son, he was naturally looked to by the family as a protector. The ill-health of his mother, too, required his presence at home. But he did not give up his books or abandon his purpose to study medicine, to which end he had for some time been directing his attention. In 1835, at the age of eighteen, he entered the office of Dr. Lymon Bartlett, of New Bedford, and after one year's reading, attended a course of lectures at the Berkshire Medical College. The following year he attended lectures at a private medical school in Boston, conducted by Dr. J. C. Warren, George Haywood, and others. In 1837-38 he entered Harvard. At the close of the lectures he was appointed House Surgeon to the Massachusetts Gen-

eral Hospital, where he remained one year, when he graduated at Harvard.

In 1839 he returned to New Bedford, and took the practice of his first preceptor, Dr. Bartlett, who was on the eve of starting on a trip to Europe. After the return of Dr. B., in the fall of 1840, Dr. Johnson concluded to make an extended tour through the Western and Southern States. Returning to Massachusetts in the spring of 1841, after a trip of several months, he resolved to remove to the city of St. Louis, where he opened an office, and has up to this time enjoyed a large, responsible and lucrative general practice.

His business of late years has been quite extensive in diseases of the heart and lungs. Patients are constantly coming to him from the adjoining and adjacent States of Illinois, Iowa, Wisconsin, Kansas, and the upper Missouri, and he is frequently called in consultation from distances of twenty-five to two hundred and fifty miles. So assiduously has he applied himself to the duties of his profession as teacher and physician that he has scarcely taken a vacation in the thirty-six years he has resided in St. Louis.

Although actively employed at all times, the epidemics of cholera of 1849, 1850, and 1851, and those of 1866 and 1867, threw upon him special and extraordinary labors, as did also the more recent epidemic of small-pox. The Doctor possesses a well-stored, active mind, and keeps himself fully informed of all the improvements in diagnosis as well as in practice, and has always taken an active interest in medical organizations. He commenced early to write, for

while at the hospital in Boston in 1839 he contributed several articles to the *Boston Medical and Surgical Journal* on endosmosis and exosmosis in relation to disease. He was an associate editor of the *Missouri Medical Journal* in 1847, and has published several articles on malarial fever at different dates from 1847 to 1851. An able paper by him on "Physical Diagnosis," may be found in the January number of 1852. He has also contributed articles to the State Medical Society, and delivered special addresses to the class in College, some of which have been published.

Dr. Johnson was elected in 1843 Adjunct Professor of Clinical Medicine and Pathological Anatomy in the Missouri Medical College. He held this position for three years, when he was elected full Professor, which chair he filled with ability and to the satisfaction of the faculty and to increasing classes until 1853, when he resigned. In 1854 he was elected to the chair of Clinical Medicine and Pathology in the St. Louis Medical College. After the death of Professor Linton, he was induced to take the chair of Theory and Practice, which he still holds, and is now the oldest active teacher of medicine in the State of Missouri.

Settling in St. Louis, he identified himself with the medical organizations of the city and of the State of Missouri. He is a member of the Missouri Medical Society, and was its President in 1852; its Vice-President in 1867, and again in 1869; of the St. Louis Medical Society, and of the St. Louis Medico-Chirurgical Society; of the Pathological Society of Boston, and other medical organizations, and an honorary member of the Boylston Prize Association, and was

its Secretary in 1839, and of the California State Medical Society, and of other learned and scientific bodies. He was a fellow of the Massachusetts Medical Society in 1840. He became a member of the American Medical Association in 1847, was First Vice-President in 1850, and in consequence of the illness of the President, Dr. R. D. Mussey, acted as President most of the time.

He is a ready and a pleasant speaker, speedily gaining and closely holding the attention of his hearers. The students are particularly attached to the Doctor. He was in 1851 united in marriage to Nancy Raphael, oldest daughter of the Hon. James H. Lucas, of St. Louis. They have ten children living, having lost one son by cholera in 1866, so that they have as yet nearly an unbroken domestic circle. A more charming home than that of Dr. Johnson can scarcely be conceived. Possessing an ample fortune, surrounded by all the comforts of life, a devoted wife and a troop of healthy, joyous children, completes a scene of perfect domestic happiness. It was my great pleasure to meet them all at a family Sunday dinner in 1873. The Doctor was accompanied on his trip to California by his son James. After the adjournment of the meeting of the American Medical Association they visited the Yosemite Valley, the Calaveras Big Trees, the Geysers, and other places of interest on the Pacific Coast. Dr. Johnson possesses a great fund of anecdote, and is at the same time a good conversationalist; he was the life of every circle in which he was thrown. On account of his splendid physique and many other desirable qualities, he was elected Com-

mander of the cavalcade from Hodgens into the Yosemite valley. His great size (6 ft. 4 inches), and weight (250 pounds) made it important to select for him a strong and powerful horse. The one assigned him was the somewhat unruly, but splendid traveler, "Mona," which he managed with such skill as to win the admiration of the whole company. The trip was a delightful one, both to the Doctor and his son, and made without accident, and with but one regret, that Mrs. Johnson was not with them. This lady undertook the journey in their company, but separation from her children was unbearable, and she abandoned the trip at Kansas City and returned home.

JONES, ANDREW BARRY, M. D., of Portsmouth, was born at Hillsborough, Highland Co., Ohio, April 30, 1829; died suddenly of rheumatism of the heart, at his residence, October 15, 1876. His preliminary and academical education was obtained at the schools of his native place. He commenced the study of medicine, and attended lectures at the Cleveland Medical College, where he graduated March 6, 1850. In April of the same year he settled to practice at Jacksonville, Adams County, O., where he remained for two years. In 1851 he married Maria Jane Dunbar. He leaves no children. In 1852 he removed to Portsmouth, Sciota County, where he was fully employed in a responsible practice to the time of his death. His love of anatomy and proficiency in that branch led him to prefer surgery, in which he deserved and acquired a high reputation. His engagements in this branch extended far beyond the confines of an

ordinary practice, he being frequently called in consultation into other States. Though well qualified as a writer, an over-busy life precluded the exercise of his powers in this direction. He was appointed a trustee of the South-eastern Insane Asylum of Ohio. He was a member and for years the President of the Sciota County Medical Society; of the Ohio State Medical Society, and its President in 1872; and an honorary member of the California State Medical Society.

KANE, EDWARD, M. D., of Detroit, Mich., was born in Herkimer Co., N. Y., March 17, 1801; died at Detroit, Mich., January 21, 1875. He received a good academic education in Vermont, to which State his parents had removed. His medical studies were thorough, and he received his degree of M. D. at the University of Vermont in 1825. The same year he commenced to practice in Peru, Clinton Co., N. Y., and after three years removed to Plattsburgh, where he was extensively engaged in practice until 1856, when he removed to Detroit. In 1852 he was appointed Professor of Theory and Practice of Medicine in the University of Vermont. This position he held for six years. He occupied the position of associate editor and then that of editor of the *Medical Independent*, published at Detroit in 1856-58. This position enabled him to exhibit to his professional brethren some of the stores of rare knowledge he possessed. He was a gentleman of the old school, scholarly, engaging, upright, and courteous in his intercourse with his brother physicians and the world, and was particularly affable and sympathetic in the sick-room.

After his demise the medical men of Detroit held a public meeting at the Mayor's office, and passed a series of resolutions expressive of their appreciation of his abilities as a physician, and regretting the loss sustained by the profession and the public. He was a member of the Detroit Academy of Medicine; of the Wayne County Medical Society, and of the Michigan State Medical Society, and an honorary member of the California State Medical Society. Although he had arrived at the age of seventy, he nevertheless was vigorous in body and youthful in feelings, enjoyed the trip and his sojourn in California, and was one of the most cheerful and entertaining companions of the party.

KING, GEORGE ANDREW, M. D., of Lancaster, Pa., was born at Danville, in Montour County, April 6, 1843. Until old enough to enter the Lancaster Academy, he attended the district schools. His academic course was concluded in Franklin and Marshall College. He studied medicine with Dr. Henry Carpenter in Lancaster, and attended lectures at the Jefferson Medical College, Philadelphia, where he graduated. In 1864 he commenced practice in Lancaster, where he has continued to reside, and is now actively engaged in the duties of his profession. As an evidence of his standing in the county, and with the profession of Lancaster, it may be mentioned that he was one of the physicians called to attend Ex-President Buchanan in his last illness. He was also called as one of the physicians in attendance on Hon. Thaddeus Stevens when in Lancaster. He is one of

the Physicians to the Lancaster County Hospital and Almshouse, and Coroner's Physician for the city and county. He is a member of the Lancaster City and County Medical Society, and for a number of years has been its Secretary, and represented it at the American Medical Association in 1871. He attended the meeting in California under most agreeable circumstances, it being his wedding-trip. His bride was a beautiful blonde, tall, graceful and accomplished, who by her pleasant manner, cheerfulness and sparkling wit, added much to the general enjoyment. They visited when in California most of the places of interest, and called upon Brigham Young at Salt Lake City. The Doctor is an honorary member of the California State Medical Society.

KING, JAMES, M. D., of Pittsburgh, was born in Bedford Co., Pa., January 18, 1816. His father, John King, was the pioneer iron-manufacturer in that county and a successful business man, and procured for his children a good education. The Doctor was early sent to the Bedford Classical and Mathematical Academy, then under the direction of Rev. B. R. Hall. His medical studies were pursued with Dr. Benjamin W. Dudley, the eminent lithotomist, in Lexington, Ky. He graduated from the Transylvania University in 1838. Shortly after he began to practice in Hollidaysburg, Pa., but in 1844 he was induced to remove to Washington, Pa., and was elected Professor of Anatomy, Physiology and Hygiene in the Washington College. He also enjoyed an extensive practice; but desiring a larger field, in 1850 he removed to the city of Pitts-

burgh, where he has been since actively engaged in the duties of his profession. On the breaking out of the war of the rebellion, he entered the military service as Surgeon. He was successively Surgeon at Camp Curtin, Division Surgeon of the State, and Medical Director of the Pennsylvania Reserves. After their muster into the United States service, he was with them until after the battle of Antietam, and was a participant in all the battles in which the Reserves took a part. At the request of Governor Curtin he was mustered out of the United States service, to take the position of Surgeon-General of the State of Pennsylvania. This honorable position he filled acceptably and with ability until August 1, 1864, when he resigned and returned to private practice. His duties while Surgeon-General were arduous and responsible, he being charged by the executive with the selection of the principal medical officers sent by the State to care for the valiant forces in the field. The conscientious and able manner in which he performed his duties commanded the admiration of the medical profession, and also of the executive officers of the State and General Government. The Surgeon-General of Ohio, in making his report, complimented Dr. King by drafting it after his model. He is a man of scholarly tastes and fine classical attainments, and has a thorough knowledge of medicine and surgery, and is extensively known beyond the confines of his own State. He is a member of the Allegheny County Medical Society; of the Pennsylvania State Medical Society, and was its President in 1866; of the American Medical Association, and attended the meeting at San Francisco in

1871; and an honorary member of the California State Medical Society. The Doctor is a good observer; and it is to be regretted that he has not written more for the benefit of the profession. His report as Surgeon-General, and his addresses on various occasions before medical societies and the Academy of Science, and some articles to medical journals, comprise about all he has contributed to the literature of his profession. Although these are but few, they mark him as a man of ability, from whom we would like to receive more. Dr. King is united in marriage to Anne L. Russell, of Bedford, Pa. They have two children living, both daughters.

* KNIGHT, HENRY MARTYN, M. D., of Lakeville, Conn., was born at Stafford, Tolland Co., August 11, 1827. His father was a clergyman, who secured the best education his means justified for his sons, at Williston Seminary, East Hampton, Mass. The subject of this sketch studied medicine with Dr. J. F. Minor, now of Buffalo, N. Y., and with Dr. Alvan Smith, of Monson, Mass. After attending the usual courses of lectures, he received the degree of M. D. from the Berkshire Medical College. In February, 1850, he opened an office and commenced practice at Stafford Springs, Conn. The following November he removed to Lakeville, Conn. In 1861 he was appointed Superintendent of the Connecticut School for Imbeciles, a position in which he still labors with zeal and success. He publishes annual reports on the condition of the inmates and the results of education among them. In 1872 he published a paper in the

Transactions of the Connecticut State Medical Society, on the "Hallucinations of Childhood." He is a member of the Connecticut State Medical Society; of the American Medical Association, and an honorary member of the New England Psychological Society, the N. Y. State Medical Society, and of the California State Medical Society. In October, 1850, he married Mary Fitch Phelps. They have two sons—Robert P. and George H. The Doctor is a man of extensive general information, an agreeable companion, and enjoyed his trip to California.

KNOX, WILLIAM AUGUSTUS, M. D., of Chicago, Ill., was born in Lenoir County, N. C., August 8, 1832. His father, Reuben Knox, M. D., was a prominent physician at Kinston, in that State, who, in 1837, removed to St. Louis, Mo., where he soon ranked among the ablest in his profession, and became a very prominent and influential citizen. The subject of this sketch graduated at the Illinois College, at Jacksonville, about 1852, with high honors, taking the degrees of A. B. and A. M. He then commenced the study of medicine, and, after attending the usual courses of lectures at the Jefferson Medical College, Philadelphia, Pa., graduated M. D. in 1854. He commenced the practice of his profession at Rock Island, Ill., and was quite successful; and subsequently at Virden, Ill. At the breaking out of the war, while residing at the latter place, he was commissioned by the Governor, First Assistant Surgeon of the Ninth Illinois Cavalry, in which position he served with credit until 1862, when he was pro-

moted to the grade of Surgeon of the One Hundred and Twenty-second Infantry. In recognition of his services and ability in his profession, in 1866 he was appointed by the Secretary of the Interior of the United States one of the Pension Surgeons in Chicago, to which city he had removed and was engaged in a large and lucrative practice. Dr. Knox was elected President of the Board of Pension Surgeons, and filled the position with so much credit that, upon his resignation in 1872, he was the recipient of a most flattering letter from the Commissioner of Pensions, acknowledging the painstaking and faithful manner he had performed this important duty, and regretting his resignation. In 1871 he was sent as a Delegate from the Chicago Medical Society to the meeting of the American Medical Association at San Francisco, Cal. At its close, he visited many places of interest on the Pacific slope, and returning stopped for a day at Salt Lake City. In 1855 the Doctor was united in marriage to Georgiana E. Heaton, daughter of Dr. O. B. Heaton, a prominent and well-known physician of central Illinois. They have no children living. For several years he has entirely relinquished the practice of medicine. His home is in Chicago, but he spends much of his time, with his wife, who is an invalid, in traveling. He is a member of the Chicago Medical Society, the American Medical Association, the Illinois State Medical Society, and an honorary member of the California State Medical Society.

LANGDON, OLIVER MONROE, M. D., of Cincinnati, Ohio, was born near Columbia, one of the

suburbs of Cincinnati, February 2, 1817. He is the son of Oliver Langdon, D. D. and M. D., who about 1800 settled in Hamilton County, and bought a section of land which extended from Mt. Lookout to the city limits. His mother was the daughter of Col. William Brown, a soldier of the Revolution, who settled near Cincinnati, as early as 1789. The subject of this sketch lost by death both his parents, at about the age of twelve. He then went to live with a cousin in Cincinnati, and attended a private school, there then being no public schools. In 1831 he entered the now widely known Woodward High School, where he continued until the appearance of cholera in 1832, which suspended studies, when he spent some weeks at the old homestead. On the subsidence of the epidemic, he returned to Cincinnati and entered as a student of the Atheneum, now St. Xavier's College. While a member of the family of his cousin, he did service sufficient to defray his expenses. Concluding a course of two years at the Atheneum, he commenced the study of medicine in the office of Professor Cobb, of the Medical College of Ohio. He attended lectures in this institute, and graduated in 1838. Then he formed a partnership and commenced practice in the town of Madison, Ind., where he resided until 1842, when he returned to Cincinnati and opened an office. Shortly afterward, he was appointed physician to one of the wards of the city. This position he filled acceptably to the community and the city authorities, until the beginning of the Mexican war, when he was appointed Surgeon of the Fourth Ohio Regiment, under command of Colonel Brough. He

served throughout the campaign and returned with his regiment, at the close of the war, in 1848. A partnership in practice was formed between him and Dr. Jesse Judkins; this association continued until 1859. About 1850 he was appointed Physician to the House of Refuge, and, afterwards, Physician to the Lunatic Asylum at Lick Run; both of these he filled until 1856. In 1859 Dr. Langdon was appointed Superintendent and Physician to the Longview Asylum, then just completed. On removing to this institution, he gave up his city practice. This position he held with credit and ability until 1870, when, on account of failing health, he retired. He is possessed of a cultivated mind and enjoys large wealth, and has during late years devoted himself to the encouragement of benevolent and reformatory measures, and of later years has traveled extensively. He was one of the originators and is still one of the Trustees of the Miami Medical College. He was instrumental in having the lunatics removed from the old Commercial Hospital to the buildings provided at Lick Run, which eventually resulted in the building of Longview. Fortunately for the good of the institute, he was chosen to organize and then to manage this institution, which, while it is a monument to the Doctor, is at the same time an honor to the profession, the age and the country. The Doctor also took a leading part in the measures which led to the establishment of an asylum for the colored insane, which is now a department of Longview, and to which now all this class of patients throughout the State are sent for treatment. He has been an active worker in nearly all the med-

ical organizations, both State and National. His professional life brought him much in relation with philanthropists and leading physicians and reformers of his day, and most creditably has he sustained an honorable position among them. The Doctor is scarcely known as a writer, but this is more through want of time than of ability. He contributed two papers to Professor Drake, which are incorporated in his first volume. These, with his eleven reports as Superintendent of Longview Asylum, constitute his more important literary productions. He is a member of the Cincinnati Medical Society; of the Cincinnati Medical and Chirurgical Society; of the Ohio State Medical Society; of the American Medical Association, and has been since 1850; of the American Medical and Psychological Association; of the Association of Superintendents of Hospitals for the Insane of the United States, and an honorary member of the California State Medical Society.

LONG, ALFRED JEROME, M. D., of White Hall, N. Y., was born at Rutland, Vt., August 5, 1824. His father and mother are natives of that State, and are still living, at the ages of eighty-six and eighty-five respectively. Until the age of nineteen, the subject of this notice remained on his father's farm, and then was sent to Castleton Seminary during summer, and taught school in winter. In 1847 he entered Middlebury College, from which he graduated in 1851. While still attending college, in 1849, he commenced the study of medicine with Dr. Henry R. Jones, of New Haven, Vt. During the fall and winter of 1851,

he taught at the High School in Bridport, and, in the spring and summer of 1852, was principal of the Georgia Academy, Vt. In 1852 he attended the fall course of medical lectures at the Castleton Medical College. He attended his second course at the University of New York, where he graduated M. D. in the spring of 1853. July 28th of this year, he opened an office at White Hall, Washington Co., N. Y., where he gradually acquired a good practice, which he still enjoys. In all the years of his professional labors, he has never taken rest, save that gained in attending the meetings of the local, State and National Medical Societies. He was Superintendent of the Public Schools in 1856; Justice of the Peace from 1857 to 1863; a member of the Board of Education from 1866 to 1875; Town Physician in 1862 and 1863; Health Officer of the Port of White Hall, 1866 and 1867. He is a member of the Washington County Medical Society, and was its President in 1869-70, and its delegate to the New York State Medical Society from 1867 to 1871. He was President of the Union Medical Association of Washington, Warren and Saratoga Counties in 1876. He was a Delegate from the State Medical Society to the American Medical Association in 1871, and attended the meeting at San Francisco. He is also an honorary member of the California State Medical Society. The Doctor is a man possessing rare powers for original observations, with native wit and an inexhaustible fund of anecdote, and, therefore, a most agreeable and entertaining companion. His notes of observations and incidents of his trip to the Pacific are deserving of publication. It is to be regretted

that they cannot be introduced into this sketch. In 1869 Dr. Long made an address before the Washington County Medical Society, on the necessity and advantage of more frequent meetings of the body, which he was requested to furnish for publication. In 1870, before the same body, he read a paper on the "Claims Modern Life imposes upon the Profession." His time is so fully occupied that he has never found time to prepare for the press some admirable addresses, notwithstanding he has been requested to do so by a vote of the Society. He is a clear thinker and a peripatetic and forcible speaker, and ought not to hesitate to appear as an author. In December, 1855, he was united in marriage to Susan Eleanor, daughter of Thomas Coulson, of Albany, N. Y. They have four children living—Mary Jane, the wife of Dr. B. C. Senator, Charles Jared, Benjamin Alfred and Clymer Barr.

MASON, DARIUS, M. D., of Prairie du Chien, Wis., was born in Swansea, Bristol Co., Mass., April 1st, 1830. He is the youngest son of Olney and Lillis (Pierce) Mason. He attended the public schools until fifteen years of age, and then attended the Friends' Academy at New Bedford, for four years. He commenced the study of medicine with Dr. Lyman Bartlett, of New Bedford, in 1850; attended his first course of lectures at Harvard College in 1850-51. The next two years he spent under the tutorship of Drs. Willard Parker and Robert Watts in New York, and attended two courses of lectures at the College of Physicians and Surgeons in that city, graduating M. D., in 1853. The spring of this year he took a position at the Nur-

sery Hospital on Randall's Island, New York Harbor. In 1856, he commenced practice in Prairie du Chien, Wis., where he has remained, enjoying a large general practice in medicine and surgery. During the war he served eighteen months as Surgeon of the Thirty-first Regiment of Wisconsin Vol. Infantry. The Doctor has contributed a few good articles to the medical journals. He is a member of the Wisconsin State Medical Society, and was its Vice President in 1872; a Censor of the same from 1873 to 1876, and elected its President in 1877; a member of the American Medical Association, and attended the meeting at San Francisco in 1871; an honorary member of the California State Medical Society, and of the North Iowa Medical Society.

Dr. Mason is united in marriage to Adelaide, daughter of the late Lieut. Charles Brishois.

McARTHUR, ALONZO LINCOLN, M. D., of Rockford, Ill., was born in Washington Co., N. Y., October 19, 1822. His father was a farmer, a native of Scotland, and his mother of English parentage of noble descent. His preparatory education was at the public schools, until he entered Wilson Collegiate Institute in Western New York. Having read medicine and attended three courses of lectures at the Rush Medical College, he received the degree of M. D., in 1850. In the spring of the same year he commenced practice in the city of Joilet, Ill., where he was actively engaged until 1866, when he removed to the city of Rockford, in Winnebago Co., where he now resides and enjoys a good practice. The Doctor was ambitious for a thor-

ough knowledge of his profession, and during the winter of 1851, returned to his Alma Mater, and again attended lectures, returning in the spring to business. The winter of 1852-53, he spent in Philadelphia, attending lectures at the University of Pennsylvania. His devotion to study and his exact knowledge of anatomy and familiarity with pathology brought to him a large and profitable surgical practice, so that for years his professional business yielded him about \$8,000 per annum. The same qualities which made him the good student made him a close reasoner, a forcible and ready writer, and a fluent and agreeable public speaker. He has contributed a considerable number of papers to the medical journals and to the Transactions of the Illinois State Medical Society, of which he has been Secretary and Vice President. He was for some time one of the Professors in the Medical Department of the Lind University, afterwards called the Chicago Medical College. During the war he was appointed by the Governor one of the Medical Examiners. The duties of this Board were to examine applicants for the position of Surgeon and Assistant Surgeon of the regiments of the Illinois troops—a highly responsible and important service. He is a member of the Joilet Medical Society; of the Rockford Medical Association; of the American Medical Association, and in the summer of 1871 was made honorary member of the California State Medical Society. He has been for years a member of the Board of Education, Director of Public Libraries, etc. In 1854, he was united in marriage to Mary K., daughter of Hon. James Curtis, Mayor of Chicago. They have six children living, five daugh-

ters and one son. The Doctor's wife accompanied him to California, and after the adjournment of the Medical Convention they visited the Yosemite Valley, the Big Trees, the Geyser; and other noted localities on the Pacific coast, and spent a few days at Salt Lake City, *en route*.

McCLANAHAN, JOHN PORTER, M. D., of Alexis, Warren Co., Ill., was born at West Union, Adams Co., Ohio, November 5, 1831. His father was a man of influence, and was elected a number of times to the Legislature; served as a private soldier in the war of 1812, and, again, as a Captain in the Eighty-Third Regiment of Illinois Volunteers in the war between the States, dying February 21, 1863, of wounds received at Fort Donelson on the 3d. The subject of this sketch received his education at the public schools, at Ripley, Brown Co., Ohio, and at the Academy at North Liberty, in Adams County. He commenced the study of medicine with Dr. Alexander Dunlap, of Ripley. In the spring of 1851, and after three years' office study, he attended a course of lectures at Western Reserve Medical College, at Cleveland. His second course of lectures was attended at the Jefferson Medical College, Philadelphia, where he graduated M. D. in 1854. In April of this year, he commenced practice in Ashland, Greenup Co., Ky., where he resided two years, removing to Norwood, Mercer Co., Ill., in May, 1856, where he had a fair practice. In May, 1862, he was appointed Assistant Surgeon to the Eighty-Third Regiment of Illinois Volunteers, and served till 1864, when, from ill health, he was com-

pelled to resign and return home, and resumed his old practice at Norwood. In 1872, desirous of better railroad facilities, he removed a few miles into the adjoining town of Alexis, where he has since been actively engaged in general practice. The Doctor assisted in the organization of the Mercer County Medical Association, and was for some time its President; was also active in consolidating the latter with the Military Tract Medical Society, in which organization he was Vice-President. He is a member of the Warren County Medical Society; of the Illinois State Medical Society; of the Illinois State Temperance Reform Association, and its President; of the American Medical Association, and an honorary member of the California State Medical Society. He is united in marriage to Margaret Jane Jones; they have three children. His oldest son—Harry M.—is studying medicine.

McDOWELL, WILLIAM JEFFERSON, M.D., of Portsmouth, Ohio, was born in that place, Sept. 14, 1821. His ancestors were practical, well-educated, and thrifty. His grandfather, Dr. William McDowell, after one course of lectures at the University of Pennsylvania, received the certificate of Drs. Rush and Physick, vouching for his ability to practice medicine, which he pursued with reputation for over fifty years. The subject of this sketch received his academic education at Augusta Literary College, Kentucky. He pursued his medical studies with Drs. G. S. B. Hempstead and James M. Shackleford, attended one course of lectures at Louisville, Ky., in 1842-43, and gradu-

ated after attending a winter course at the University of Pennsylvania, in 1845. He commenced practice in Portsmouth, in May of the same year, and has been fully occupied with professional business, which he enjoys to the present day. Dr. McDowell is a member of the Sciota County Medical Society, of the Ohio State Medical Society, and of the American Medical Association, and has been since 1867; and an honorary member of the State Medical Society of California. In 1863, he was appointed by the Governor of Ohio, an Examining Surgeon for the volunteers of the State. Dr. Hempstead is the only physician now living in Portsmouth who resided there when he commenced practice in 1845. The Doctor enjoyed his trip to California, visiting Salt Lake City *en route*, and many of the notable places in California. He has never married, but has a troop of warm personal friends, the result of a life guided by Christian duty, professional liberality, and benevolence. Dr. McDowell says:

"Of the number of physicians who have practiced medicine in Portsmouth since my connection with the profession, twenty-four have died, a few here, but most of them after leaving our place. This fact impresses me that practicing medicine is not conducive to long life, especially when town and country practice are combined."

McFARLAND, JOHN ALEXANDER, M. D., of Tiffin City, Ohio, was born at Waynesboro, Franklin Co., Penna., June 10, 1811. His father, John McFarland and mother, Ann McKeon, were from the north of Ireland. They were well educated, prudent, and

thrifty people, raising six sons to man's estate, one becoming a Bishop (of Hartford, Conn.), two physicians, and three farmers. The father is said to have had a remarkable memory, being able to repeat every part of the Bible from Genesis to Revelations. His mother was a woman of rare sound judgment, exemplified in domestic and Christian duty. The subject of this sketch, after going through the courses taught in the village schools, was sent to the Academy taught by Thomas J. Harris, in Chambersburg, Penna. One of his teachers was Mr. James Clark, a graduate of West Point, now a Priest of the Society of Jesus, and President of Gonzaga College, in the District of Columbia. After leaving the Academy he engaged for several years in teaching school in Waynesboro. He then commenced the study of medicine, and after attending the usual courses of lectures at Jefferson Medical College, Philadelphia, received the degree of M. D. in 1837. In May of this year he opened an office in Tiffin, where he has ever since resided, and has been fully employed in the duties of his profession. Although the Doctor is entirely competent to have contributed much to medical literature, he has thus far put on record but a couple of articles written for the medical journals. In 1868, he published in the Cincinnati *Lancet and Observer*, an article "On the Use of Ice and Ice-Water in Croup," giving cases in which he had used them, dating back to 1843. Doctor McFarland is a member of the Ohio State Medical Society, and was one of its Vice Presidents in 1857; of the American Medical Association, and has been since 1857. In 1854, and for several subsequent years, he was President

of the Seneca County Medical Society. He represented this body in the National Medical Convention at San Francisco, 1871. He is an honorary member of the California State Medical Society. He was united in marriage to Ann E. Staley, daughter of Dr. Henry S. Staley, of Frederick, Md. She departed this life, May 30, 1870. They have five children living—William R., Euna, Mary A., Edith A., and Louisa. Though forty years of assiduous labor in a malarial region, have made serious inroads upon his health, yet the Doctor's time is still occupied in the active duties of professional life. While in California he visited many localities of interest to strangers, and stopped for a day at Salt Lake City. He is an agreeable conversationalist, full of reminiscences, and it is to be hoped that he will yet be induced to give the profession a volume from his rich storehouse, garnered from a long life of experience and intelligent observation and practice.

MEARS, GEORGE WASHINGTON, M. D., of Indianapolis, Ind., was born at Harrisburg, Pa., June 27, 1803. He is the son of William and Elizabeth Mears, who were early settlers at Catawissa, on the banks of the Susquehanna, where his father engaged in merchandising. Here the subject of this sketch received his education, at the common schools and from private tutors. The classics and higher branches were studied under the then celebrated teacher, Ellis Hughes. His medical studies were commenced in Catawissa, under the direction of Dr. E. Daniels, a well educated physician from Massachusetts. In the winter of 1824-25, he attended his first course of lec-

tures at Yale College, New Haven, Conn. His second course was at Philadelphia, in 1825-26, as a member of the first class of the Jefferson Medical College, then just organized. He also attended a second course in this college, and graduated M. D. in the spring of 1827, with Drs. Gross, Luzenberg, Knapp, McIntosh, Pelham, and others, who have since distinguished themselves as teachers, writers and practitioners. While yet a student, he was elected Resident Physician of the Children's Asylum, corner of Fifth and Plum streets, Southwark. The City Guardians to the Poor had over two hundred children, under six years of age, cared for in this establishment; the clinical advantages were, therefore, of the first order, as the institution was attended by eminent physicians, such as Condie, Nancrede, Coates, and others of equal ability. On the conclusion of his term in the asylum, Dr. Mears opened an office in Vine street, below Third, where he practiced with success for two years, and then removed to Vincennes, Ind., where he soon acquired a good business. On the 23d of November, 1833, he was united in marriage to Caroline Sidney, daughter of Nathaniel Ewing, Esq., of Indiana. In the spring of 1834, he was induced to remove to the capital of the State—Indianapolis—where he still resides, engaged in teaching, and in the active duties of the profession. In 1849 he was tendered, and accepted the chair of Obstetrics and Diseases of Women and Children in the Central Medical College of Indiana, organized by the Trustees of Asbury University. This new institution at first met with fair success, but, from the intermeddling of the Trustees,

lectures were discontinued after three years. The Medical Society of Indiana, in 1869, recognizing the need of an institution for medical instruction at the capital of the State, encouraged the founding of a medical college, which has been successfully organized at Indianapolis, under the name of the "Indiana Medical College." In this the Doctor was again elected to the chair of Obstetrics, and has lectured to seven annual classes, varying in number from fifty to one hundred and thirty students. Although not a frequent contributor, he has written some excellent articles for the medical journals and for societies, notably his paper on "Unavoidable Hæmorrhage," published in the State Medical Society's Transactions for 1868. He was, during its existence, an active member of the Indianapolis Academy of Medicine. He is a member of the Marion County Medical Society; of the Indiana State Medical Society, and served as its President in 1853; of the American Medical Association, and has been since 1850, and an honorary member of the California State Medical Society. His wife accompanied him to California, to attend the meeting in San Francisco in 1871. He has long served as Examining Physician for Pensions, and is President of the Board for his district. The Doctor has three children—one daughter and two sons. One of his sons—Dr. James Ewing Mears—is a rising physician in Philadelphia.

MENDENHALL, GEORGE, M. D., of Cincinnati, Ohio, was born at Sharon, Beaver Co., Pa., May 5, 1814, and died at Cincinnati, June 4, 1874. He was

the fourth son of Aaron and Lydia Richardson Mendenhall, members of the Society of Friends. His first paternal ancestors in America were present and took a prominent part with William Penn in his "Elm Tree Treaty" with the Indians, at Kensington, in November, 1682.

The parents of the subject of this sketch, while he was quite young, removed to the vicinity of Fairfield, Columbiana County, Ohio, where he attended the common schools of the neighborhood, and received such education as they and the family library afforded. His parents, who had themselves received a liberal education, were earnest advocates of learning.

The doctor was from youth of a delicate constitution, and had in consequence to give up mercantile pursuits, in which for a short time he was engaged. His taste for the study of medicine was mainly developed while attending a store in which drugs were sold. Desirous for a knowledge of their character, mode of administration, etc., he was induced to read something in reference to them.

Having sufficiently mastered Latin under a private tutor, he commenced the study of medicine with Dr. Benjamin Stanton, of Salem, Ohio, with whom he remained two years and a half. He attended lectures at the University of Pennsylvania, where he graduated in 1835. His thesis was "On the 'Remedial Effects of Cold Water.'" After graduating he was appointed, and served during the winter of 1837, as Resident Physician in the Pennsylvania Hospital. Returning west, he opened an office in Cleveland, Ohio, then a city having a population of 5,000 inhabitants, where

he continued to practice with success until 1843, when, owing to impaired health, he removed to Cincinnati.

In 1838, Dr. Mendenhall was united in marriage with Elizabeth S. Maule, of Philadelphia, Pa., formerly of Richmond, Va., who, with three children, survives him. During the Doctor's residence in Cleveland, he was three times elected to the Municipal Council, and while serving in that capacity was called upon to officially announce his life-long principles of temperance and to cast the deciding ballot in opposition to granting license for the sale of intoxicating liquors, thereby preventing the licensing of any liquor-store during his term. Soon after settling in Cincinnati he, with Drs. Vattier, Chamberlin, Warder, and Williams, conducted the City Dispensary, and gave a great deal of his time to this admirable public charity. This period of his life was marked by great mental activity and industry, and to him is due much of the credit for the conception and inauguration of measures that led to the organization of a Summer School of Medicine, with which he was connected for several years. During the cholera epidemic of 1849, there was much sickness, and a great deal of labor devolved upon him in connection with the Public Dispensary. He ever took an active part in every enterprise public measure which had for its object the relief of human suffering.

On the organization of the Miami Medical College, in 1852, he was elected to the chair of Obstetrics and Diseases of Women and Children. Subsequently this college was consolidated with the Ohio Medical College, the Doctor retaining his favorite chair. For

a number of years he was attached to the Staff of the Commercial Hospital, an institution in which he had much professional pride.

Dr. M. had a profound conviction of the ability and duty of the physician to prevent and cure disease. He was a man of courteous manners, sympathetic disposition, and exceedingly affable and encouraging in the sick-room. One of the fine traits in his character was promptness in fulfilling any engagement. He despised procrastination, and by some of his professional brethren he was called the "Minute Doctor." He was attentive to all the smallest requirements of professional duty, and laborious as a student. In 1847, he published an admirably arranged and condensed Students' Vade Mecum, which in 1877 had passed through twelve editions.

In 1858 he made a report to the American Medical Association on the "Epidemics of Ohio," which is published in the Transactions of the association of that year. In 1865 he delivered the opening address of the sixth session of Miami Medical College, in which institution he was Dean, which was published by the class. He was one of the founders of the *Medical Observer* (afterward the *Western Lancet*), and one of the editors from 1856 to 1858. In 1870 he was President of the American Medical Association, and delivered an able and well-considered address. He was a member of the Academy of Medicine of Cincinnati; of the Ohio State Medical Society; of the American Medical Association from 1850, and an honorary member of the California State Medical Society. He was also a member of the Dental Col-

lege of Cincinnati, having accepted a chair in it when friends were few and much needed.

His wife and youngest son accompanied him on the trip to California. They protracted their visit, so as to leisurely examine all the places of interest on their way; in company with other members of the party, they stopped at Salt Lake City. The Doctor's health seemed to have been much improved from this trip. However, in 1872, he was admonished by his medical friends of the necessity of relaxation, and for this purpose he visited Europe with his family, and, for a time, supposed himself quite restored to health. While there, he was made an Honorary Commissioner to the Vienna Exposition, and, during his sojourn in England, was elected a member of the Royal Obstetrical Society.

During the war, he took an active part in endeavoring to relieve wounded soldiers, and gave his assistance and attendance to soldiers' families gratuitously. Voluntarily, three different times he went from Cincinnati on the Government gunboats, to attend the sick and wounded on the battle-fields, sacrificing his extensive practice. Although exempt from military service, he furnished five substitutes for the army.

Upon his return to America in 1873, while riding in his carriage on the 24th of August, visiting his patients, he was attacked with paralysis. From this seizure he never fully recovered, and, after lingering for ten months, finally sank to his grave, honored by his professional brethren and beloved by thousands throughout the city, to whom he had often administered relief, at all hours of the day and night, for a third of a century.

The attendance at his funeral obsequies was one of the largest ever known in Cincinnati, and in the daily press of that date notices were very extensive and appreciative of his eminence as a physician and the loss the public had sustained by his death.

MOORE, EDWARD BUCKNAM, M. D., of Boston, Mass., was born in Lancaster, N. H., June 12, 1801; died suddenly, of angina pectoris, in Chelsea, Mass., September 16, 1874. The ancestors of Dr. Moore trace their descent on the paternal side from Colonel Jonathan Moore, a British officer, who is believed to have been of Scotch origin. His sword is preserved as an heirloom in the family of C. K. Moore, of Parsonfield, Me. The Colonel had two sons, Jonathan and William 1st. William had four sons, William 2d, Coffin, Harvey, and Peter. These four came to America long before the Revolution, at what precise date is not known, and settled in New England. The descendants of these are now scattered throughout the United States. William 2d married a sister of Col. Peter Gilman, of Stratham, N. H., by whom he had five sons, among whom was William 3d, who was taken by the Indians in one of their incursions and he resided or was detained among them for many years—Coffin 2d, Peter, Henry and John. Coffin 2d was Dr. Moore's grandfather, and was born at Stratham, N. H., February 25, 1739; he studied medicine and practiced with success to a good old age. He was married to Comfort Weeks, of Greenland, N. H., March 3, 1760. They had four sons and three daughters. Their third child was Coffin 3d, the father of

the subject of this sketch, was born at Georgetown, Mass., April 30, 1768, and died at Lancaster, N. H., August 22, 1842. He was at Lancaster, N. H., with General Edward Bucknam, about 1787, who was for many years the principal surveyor in the County of Coos, and whose daughter Mary, he married in 1789. They had eight sons and three daughters.

The subject of this biography was the fourth child. His youngest brother, Jacob Bailey Moore, was also a physician. His father, Coffin M., was a respectable farmer, who spent the inclement days of winter in making and mending shoes for his family, and for his neighbors. He supported his family by his labor and industry, and gave them the best common school education that his means and the facilities of the town afforded.

The mother of the Doctor was the second daughter of General Edward Bucknam. The latter was born at Athol, Mass., June 21, 1741, and died at Lancaster, N. H., March 9, 1813. He had married Susannah, daughter of David Page, one of the first settlers of Lancaster. They had two sons, Edward and George, and five daughters. The second daughter, Mary, was born July 22, 1769, at Lancaster, and died in the same town, May 4, 1837.

As an indication of the strong will and unconquerable desire on the part of Doctor Moore to obtain an education, it is worthy of mention that up to his nineteenth year he worked upon his father's farms, except the three winter months when he was permitted to attend school. The two last winters he engaged in teaching. In the spring of 1821, he left his native

town with but \$20 as an outfit, and this sum was saved from his labor as teacher. He went to Pembroke, N. H., where he fitted for college.

Having resolved to study medicine, and receiving encouragement, he became a pupil without a complete college course (which he never ceased to regret), and entered the office of Dr. Thomas Brown, of Deerfield, but formerly of Manchester, N. H., where he spent four years, except the three winter months, which he devoted to teaching, to obtain the means necessary to prosecute his professional studies, and to attend lectures. He attended one session at Dartmouth and the other at Bowdoin, and graduated M. D. in 1828.

He then went to Concord, N. H., where he opened an office and procured such books for his library as he could afford with his slender means; but after six months he removed to Epping, where he engaged in practice with good success. April 10, 1830, he was united in marriage to Elizabeth, daughter of the Hon. Samuel Lawrence, of Epping. His business became large and remunerative, and he prosecuted it assiduously until the spring of 1847, when he removed with his family to Boston, Mass. He took the office that had been occupied by Dr. Lane, who had just died of cholera. The Doctor's reputation had preceded him, and he soon found himself fully engaged in practice. He promptly identified himself with the interests of the profession and the city, and was chosen to fill various public offices.

He was a member of the Boston School Committee in 1849-50, and of the Boston Primary School Committee from 1851 to 1854; of the Massachusetts Med-

ical Society; of the American Medical Association, and had been since 1855; of the New England Historic and Genealogical Society since 1858, and an honorary member of the California State Medical Society. He was appointed Coroner for Suffolk County in 1858, a position which he held at the time of his death. He was also one of the distributors of the Howard Benevolent Society for the last twenty years of his life.

From an early period of his professional career, he was a member of the Independent Order of Odd Fellows. He was also a devoted Mason, and had received the thirty-third and last degree of the Ancient and Accepted Scottish rite.

I am acquainted with but few contributions the Doctor has made to medical literature; but he was by no means an idle man nor wanting in literary ability. December 10, 1873, he published his thirteenth annual report of the proceedings and workings of the Grand Council of Masons of the several States.

Dr. Moore was a man of great probity of character, strong and stable in his friendships, devoted and untiring in doing good. As a physician he was successful and popular, because he sought to deserve honor by the noblest means—that of rendering zealous and intelligent service to those who sought his professional aid. He was a constant reader of the best books; also attended the meetings of the medical societies, and thus kept himself abreast of the latest and best means of relieving human suffering. He was not only well informed, but self-reliant and assuring in the sick room, and was conscientious and faithful

in the discharge of all his professional duties. For twenty-five years previous to 1868, he was hardly ever without one and often several students in his office, and was recognized by all who knew him as the friend and patron of the young physician.

Dr. Moore had three children—two sons and one daughter—but one of whom is now living, Samuel Lawrence Moore, M. D., a graduate of Harvard and a practicing physician of ability, who not only worthily enjoys the reputation of his father, but gives promise of adding to the fame of an honored ancestry.

MOORE, ELI HARDMAN, M. D., of Wellsburgh, W. Va., was born in that place April 4, 1818; died suddenly at his residence, Wednesday, January 16, 1878. His ancestry on his father's side were of Irish extraction, but had resided in Virginia for many years. His father removed from Botetourt Co., Va., to Wellsburgh, in April, 1810, where he spent the remainder of his life, dying in May, 1864. His mother was a native of Wilmington, Delaware, and died in 1873, aged 82. The subject of this sketch was an only child, and when young was of delicate constitution. He was educated at the common school, and also at the Wellsburgh Academy. In 1833, he entered Washington College, Pennsylvania, where he spent several years, but was obliged on account of his health to suspend all study, being furnished with an honorable certificate from the President to that effect. For the recovery of his health, he was sent South, remaining some time in Mississippi and Louisiana. Returning home, he commenced his medical studies in the office of Dr. John Campbell,

where he spent about fifteen months; he then attended lectures at the Jefferson Medical College, Philadelphia, where he graduated, after three full courses of lectures, in the spring of 1840. While in Philadelphia, he was a private pupil of Prof. R. Dungleson's, and for one year a chemical clerk of Prof. John Revere, Professor of Theory and Practice in the College Dispensary. During all these years his health remained poor, he being most of the time under treatment. After graduating, his parents would not give their consent to his leaving home, so that he commenced practice in his native place, which became his permanent residence. The Doctor throughout his professional life has rather sought quiet than any notoriety. He has neither held offices of note nor made contributions to medical literature. He was a member of the West Virginia State Medical Society, and was its Vice President in 1872; of the American Medical Association, and an honorary member of the California State Medical Society. He attended the meeting of the American Medical Association, San Francisco, in 1871. On this occasion he visited the Yosemite Valley, the Geysers, and other places of interest on the Pacific Coast. In 1840, he was married to Eliza Wilson; she died in 1850. In 1853, he was united in marriage to Narcissa P. Wilson, sister of the first wife. She died, July 1, 1877. They have left four children.

MOORE, JOHN S., M. D., of St. Louis, Mo., was born in Chapel Hill, N. C., October 5, 1807. During his infancy, he was taken by his father, Thomas Moore, with his family, to a plantation about sixty

miles below Nashville, Tenn. He attended the country schools, and assisted on the farm until his fifteenth year, when he was sent to an academy at Elkson, Ky., where he remained two years. He then entered Cumberland College, Ky., where he graduated A. B., and subsequently received from the same institution the degree of A. M. He then engaged as a tutor for one year in the college. His medical studies were begun under Gepson B. Taylor, of Morganfield, Ky. He attended the usual courses of lectures at the Cincinnati Medical College, Ohio, and received the degree of M. D. in 1836. In 1840 Dr. Moore was elected to the chair of Obstetrics in the Medical Department of Kemper College, St. Louis, Mo., and delivered the introductory in the first medical college founded west of the Mississippi river. This school, after the lapse of several years, became the Medical Department of the State University. In 1857 the college was reorganized, under a new charter, as the Missouri Medical College, which is still a prosperous institution. At the end of the first course of lectures in 1841, Professor Moore was transferred from the chair of Obstetrics to that of Principles and Practice of Medicine, a position he filled with ability and reputation for thirty-six years. During this period he acted much of the time as Dean and Treasurer of the Faculty, and President of the Board of Trustees. The Doctor has, throughout his professional career, been an efficient supporter of medical organizations, and a constant advocate for the elevation of medical education. He is a member of the St. Louis Medical Association; of the Missouri State Medical Society; of

the Medical and Chirurgical Society of St. Louis; of the American Medical Association, and has been since 1852, and was one of the Vice-Presidents in 1869; and an honorary member of the California State Medical Society. He is united in marriage to Susan A., daughter of D. L. Morrison, Professor of Mathematics and Natural Philosophy in Cumberland College, Ky. They have four children—one son and three daughters—living. Mrs. Moore accompanied her husband to California in 1871, and, after the meeting of the American Medical Association, they visited the various places of interest on the Pacific coast.

MORRIS, JOHN, M. D., of Baltimore, Md., was born in Leacock township, Lancaster Co., Pa., February 6th, 1824. His ancestors were from the north of Ireland, and on coming to America, settled in Lancaster County. Having received a good academical education at the High School, and at the Lancaster Academy, the subject of this sketch commenced the study of medicine in Baltimore, with Dr. Frederick E. B. Hintze. His medical degree was received from the Bellevue Medical College, of N. Y. He is also a licentiate of the Medical and Chirurgical Faculty of Maryland, by examination, and an L. M., of Dublin, Ireland. Dr. Morris commenced the practice of medicine in the city of Baltimore, in 1846, where he has continued to reside. Although frequently called to fill important public official positions in the city of Baltimore and the State of Maryland, he nevertheless enjoys a good remunerative practice. He has from time to time, delivered addresses, and contributed

papers on professional topics to the medical journals and to the Transactions of medical societies with which he is associated. In 1852, he was elected to the Legislature of Maryland, and was re-elected and served several sessions. He was for years a member of the School Board of the city of Baltimore, and Postmaster of the city during President's Buchanan's administration. He was at one time President of the Baltimore Medical and Surgical Society. He is a member of the Pathological Society of Baltimore, and has served in its various offices; of the American Medical Association, since 1868; and an honorary member of the California State Medical Society. He represented the Medical and Chirurgical Faculty of Maryland at the meeting of the American Medical Association which convened in San Francisco, Cal., in 1871. He was also a Delegate to the British Medical Association, which met in Edinburgh in 1875. The Doctor takes an active interest in all reformatory and benevolent movements and institutions. He has been for some years President of the Maryland Inebriate Asylum. This institution has, from the good management of the Trustees and an eminently competent Superintendent, proved to be one of the very best hospitals of its kind in our country. During the epidemic of yellow fever in Norfolk, in 1855, Dr. Morris volunteered his services, and rendered professional aid for over a month, when he was himself prostrated with the disease, recovering only after a tedious illness. For his faithful and valuable services in this epidemic he received a gold medal from the citizens of Norfolk. In 1871, the Doctor was united in mar-

riage to Caroline Canfield, daughter of Wykoff Piatt, a distinguished lawyer of Cincinnati, Ohio, eldest son of Judge Benjamin M. Piatt, one of the pioneers of that State. Her mother was a niece and adopted daughter of Hon. Mahlon Dickinson, Secretary of the Navy in Jackson's administration. They have one child, a son. Mrs. Morris accompanied her husband to California, and by her agreeable manners and cheerful disposition, did much to enliven the party and keep up their spirits during the trip.

MOWRY, ROBERT BRUCE, M. D., of Allegheny, Pa., was born in that city, December 23, 1813. His father was born at Fort Pitt, of German parents, and passed his life actively and honorably engaged in mercantile pursuits. The mother of the subject of this sketch was of Irish descent. The Doctor received a good collegiate education, and then read medicine with his uncle. He attended lectures at Jefferson Medical College, Philadelphia, where he graduated in 1836. The same year, he opened an office in Allegheny City. For over forty years he has been actively engaged in a large and responsible practice, and has always taken a prominent part in the discussion of matters of a public character, affecting the interests of the profession. Besides his address as President of the State Medical Society, the Doctor has contributed some good papers to the Transactions and to medical journals. His well-stored mind and matured judgment qualifies him to write well on any subject. He is an Associate Fellow of the College of Physicians of Philadelphia: a member of the Alle-

gheny County Medical Society; of the Pennsylvania State Medical Society, and was its President in 1866; of the American Medical Association, and an honorary member of the California State Medical Society. Dr. Mowry lost his wife during the last year. He has eight children living—five daughters, all married, and three sons, one of whom is a physician practicing in Allegheny City.

NORTH, ALFRED, M. D., of Waterbury, Conn., was born at Torrington, Litchfield Co., October 5, 1836. His father was a well-to-do farmer, and secured to his son a good collegiate education, sending him to Brown University, R. I., where he graduated in 1858. Having studied medicine for several years, and attended lectures at the College of Physicians and Surgeons, New York City, he received the degree of M. D. in 1860. He served for a term as House Surgeon in the New York Hospital, but, on the breaking out of the war, he entered the military service, and was stationed for a time in Frederick city, Md., where he was Attending Surgeon to the United States Army Hospital. He was then transferred to the Military Hospital, New York. On leaving the army, he settled in Waterbury, where he now resides, actively engaged in a general practice. Dr. North has occasionally contributed articles on medical matters to the *New York Medical Record* and other medical journals. He is a member and, at present, Vice-President of the New Haven County Medical Society, which he also represented at the meeting of the American Medical Association, at

San Francisco, in 1871; and an honorary member of the California State Medical Society. Dr. North is united in marriage to Amelia H., daughter of Dr. Gurdon Buck, of New York. They have two children—Susie and Annie.

O'DONNELL, DOMINICK A., M. D., of Baltimore, Md., was born in Ireland, in 1809; died at Baltimore, August 26, 1874. His parents came to America with their family when he was seven years of age. His academic education was obtained at Emmitsburg, Md. It was his purpose to enter the ministry, but his health failing, this desire had to be abandoned. He then studied medicine and attended lectures at the Jefferson Medical College, Philadelphia, where he graduated in 1833. He began to practice at Williamsport, Md.; but that locality proving unfavorable to his health, he removed to the State of Mississippi, where he labored acceptably as a physician about two years, when he returned to Maryland, and for a time practiced at Hancock. After a short residence there he removed to Cumberland. At both of these places he enjoyed a remunerative practice; but, at the earnest solicitation of many friends, in 1848 he removed to Baltimore. In this city he soon acquired a large and responsible professional business, which he retained to the time of his death.

Of the thirty Catholic institutions of Baltimore he rendered gratuitous service to thirteen. He was devoted to his profession, and highly esteemed by his brethren and the community. A careful reader of the best medical literature, he was a skillful practitioner and

a sympathetic and encouraging friend in the sick-room. As Chairman of a Special Committee on Criminal Abortion he made a well-considered report on the subject to the American Medical Association in 1871. He took an active interest in all medical organizations, and was solicitous for a high moral and educational standard for medical men. His generous and benevolent impulses led him to connect himself with a great many societies—professional, literary and charitable. In 1854, Loyola College, of Baltimore, conferred upon him the honorary degree of A. M. He was a member of the Medical and Chirurgical Faculty of Maryland, and was first Vice-President in 1874, and represented that body in the American Medical Association, in California in 1871, and always attended its meetings with much regularity; and an honorary member of the California State Medical Society. The Doctor was married three times, and leaves a wife and two sons. His surviving wife, Sallie E. Bussy, accompanied him to California, and made with him excursions to places of interest on the Pacific coast and to Salt Lake City *en route*. On the announcement of the death of Dr. O'Donnell, a special meeting of the Medical and Chirurgical Faculty of Maryland was called, and appropriate resolutions of respect for his memory and of condolence with his family were passed, and also a resolution to attend his funeral in a body.

His remains are deposited in Bonnie Brae Cemetery, where a handsome monument marks his last resting-place. His funeral was largely attended by citizens and by his professional brethren. The press of the city

contained extended and complimentary notices of his life and worth as a physician and as a citizen.

PARSONS, JOHN WILLIAM, M. D., of Portsmouth, N. H., was born in Rye, Rockingham, Co. N. H., August 4, 1841. His ancestors for generations have furnished able physicians to New England. His education was partly received at the public schools, and later at the high schools of his native place. He also attended the Phillips' Exeter Academy, and completed his classical studies at Norwich University. He commenced the study of medicine at Dover, N. H., under the direction of Dr. L. G. Hill. In 1862, he attended a course of medical lectures at Dartmouth, when Prof. Dixi Crosby was in the enjoyment of his full powers and exercised the powers of his active brain and his large acquaintance with surgery, which he imparted to his classes in a most impressive and agreeable manner. Dr. Parsons attended the summer school, and also two courses of regular lectures at Harvard College, where he graduated M. D., in 1865. On application, and after passing a satisfactory examination, he was commissioned Assistant Surgeon of the Twenty-Fourth Massachusetts Volunteer Infantry, but after one year of service his regiment was mustered out. He settled to practice August 1st, 1866, at Portsmouth, where he still resides, and enjoys a good and remunerative general professional business. He attended the meeting of the American Medical Association at San Francisco, California, in 1871, as a Delegate from the New Hampshire Medical Society. The Doctor is a man of large intellect, high culture

and agreeable manners. The societies with which he co-operates always place him upon important committees, whenever he attends their meetings. In 1873, he was united in marriage to Mary Augusta Adams. They have no children. Although he is eminently qualified, the Doctor has, as yet, contributed but little to medical literature except reports to medical societies. It is to be hoped he may have time and inclination to give the profession the benefit of his experience and study. He is a member of the New Hampshire State Medical Society, permanent member of the American Medical Association since 1870, and an honorary member of the California State Medical Society.

PHELPS, JEREMIAH WILCOX, M. D., of Wolcottsville, Litchfield Co., Conn., was born at Norfolk, Litchfield Co., February 29, 1824. His grandfather Phelps was a patriot, and did good service in the Revolution. The subject of this sketch was educated at the high school at Winchester Center and at the Norfolk Academy. Having prepared for the study of medicine, he became the pupil of Dr. J. H. T. Cockey, with whom he remained from 1842 to 1845. His medical degree was received from Castleton Medical College, Vt., in 1846. Shortly after graduating, he opened an office at Coldbrook, Conn. In 1850 he removed to Chicago, Ill., where he remained about one year, then returning to Connecticut, and began practice at Wolcottsville, where he resided from 1851 to 1872. In the latter year he removed to New Haven, where he was actively engaged in the duties of his

profession until December, 1875, when he returned to Wolcottsville. He was a Delegate from the Connecticut Medical Society to the American Medical Association, which met in San Francisco, in 1871. The variety of climate, caused by the topography of California, and winds from proximity of the Pacific ocean, was a matter of much interest to him, as it is to most visitors. The Doctor was a member of the Connecticut State Legislature in 1870. He was President of the Litchfield County Medical Society in 1871. He is a member of the American Medical Association, and an honorary member of the California State Medical Society, and has been an Odd Fellow since 1849. Dr. Phelps was united in marriage to Augusta Caroline, daughter of Cicero Hayden, of Torrington, in 1847. In 1859, he was married to his second wife, M. M. Beardsley, widow of Dr. Peter Beardsley, of Torrington, by which marriage they have two sons.

PINKNEY, NINIAN, M. D., of Easton, Md., Medical Director U. S. N., was born at Annapolis, June 7, 1811, died at his residence, December 15, 1877. He is the son of Ninian and Amelia (Grason) Pinkney, and nephew of William Pinkney, who as a lawyer, orator, and statesman, had few equals and no superior in Maryland, and the brother of Bishop Pinkney of that State.

His education was obtained at St. John's College, from which he graduated in 1830. In January of that year he commenced the study of medicine with Dr. Edward Sparks, of Annapolis. He attended medical lectures at the University of Maryland, in 1831-32,

and the following year at the Jefferson Medical College, Pa., where he graduated M. D., in April, 1833.

On the 26th March, 1834, he entered the U. S. N. as an Assistant Surgeon, and continued on active duty until retired as Medical Director with rank of Commodore in 1873.

Dr. PINKNEY possessed a vigorous intellect and an active temperament, which, with an ardent love for his profession, enabled him to perform a large amount of professional work and literary labor outside of the requirements of his official duties. In 1839 he prepared and delivered a series of lectures to the medical profession and the students of the two institutions of Philadelphia, "On the Nerves of the Brain and Organs of Sense." They were published in pamphlet form the same year. In 1848 he delivered a lecture at Annapolis on the "Life and Character of Admiral Collingwood," which was also published in a pamphlet. In 1849, when Asiatic cholera was attracting much attention from the profession and the statesmen of America, he prepared a lecture upon the subject, giving a graphic history of its rise in India and its simultaneous importation into Europe and America. This lecture was delivered by request in several cities, and was opportune and appreciated by the profession. In 1854 he delivered a lecture, by request of the Maryland Legislature, on the subject of the "Home and Foreign Policy of the Government of the United States." This paper was published by the Maryland Legislature. This year he also delivered the Commencement Oration at St. John's College, and made the Presentation Address at the Naval Academy, by request of the

Secretary of the Navy, on the occasion of Commodore Perry's presenting the flag that had been raised on the soil of Japan. He delivered an oration before the Society of St. John's College in 1873, and lectured in Easton and Centerville, Md., on "Public Hygiene," in 1875-'76.

In 1870 he submitted to the American Medical Association a report, as Chairman of a Delegation to foreign societies, in which he proposed the following Medical Staff Rank and Grade for the United States Navy, and substantially what is now the law :

Surgeon-General to rank with Commodore.

Medical Directors to rank with Captains.

Medical Inspectors to rank with Commanders.

Surgeons to rank with Lieutenant Commanders.

Past Assistant Surgeons to rank with Lieutenants.

Assistant Surgeons to rank with Masters.

As more satisfactorily showing Dr. PINKNEY's standing in the service and his views on this subject, I give the following letter to him from Admiral D. D. Porter:

"U. S. NAVAL ACADEMY,

"ANNAPOLIS, MD., *December 31, 1867.*

"MY DEAR PINKNEY: I write you now on a subject which you broached to me the other day, in relation to your Corps. My proposition is as follows, which Line Officers will agree to: .

"1. Surgeon-General with assimilated rank of Commodore and Brigadier-General.

"12. Assistant Surgeons-General or Inspectors, with assimilated rank of Captains. From among these the Surgeon-General and Chief of Bureau will be selected.

"16. Deputy Inspectors with assimilated rank of Commander,"—and so on all the way through.

The first of these grades will never be called upon to go to sea, but will be stationed at hospitals, be Inspectors of the same, or Chief of the Bureau of Medicine and Surgery. Now, how do you like it?

Write me plump and plain what you think of it. Don't dodge the question, and be hankering after anything more. Remember the fable of the dog and his shadow. Walk right square up to the Captain's office and pay your passage. Write at once and let me know how you like what I propose, and don't be non-committal.

"Your friend,

DAVID D. PORTER.

"Surgeon N. PINKNEY, U. S. N., *Near Easton, Md.*"

In justice to the Doctor for the able efforts he made to obtain increased rank for the medical officers of the United States Navy, I will also give here a letter from the late Surgeon General J. M. Foltz, U. S. N. :

"NAVY DEPARTMENT,
"BUREAU OF MEDICINE AND SURGERY, }
"April 24, 1872."

"MY DEAR DOCTOR : I have just read, very carefully, your interesting and valuable report, on Army and Navy Medical Rank. It is quite the best history of the struggle of the Medical Corps of the Army and Navy of Great Britain to obtain that rank and position which is now awarded to them, and which we are endeavoring to obtain, that I ever met with. I doubt if any equally comprehensive statement of Orders in Council and British legislation on the subject exists in England. I therefore very much regret that your report has not been published and thus made available to all who are interested on this subject.

"I am, very respectfully and truly, yours,

"J. M. FOLTZ,

"*Surgeon-General, U. S. N.*"

"Medical Director NINIAN PINKNEY, U. S. N."

The Doctor has been a member of the American Medical Association from its organization, and its records show his frequent attendance, and zeal, and ability for promoting the efficiency of the medical corps of the Navy. He was one of the Vice-Presidents in 1876. He is a member of the British Medical Association, and an honorary member of the California State Medical Society. He received the vote of thanks of the General Assembly of Maryland in 1848, for gallant

and meritorious services in the Mexican war. The Honorary Degree of LL. D. was conferred upon Dr. PINKNEY by St. John's College in 1873.

The Doctor had a strong predilection for Surgery. I will note a few of the more important operations performed by him, and in which he was very successful. May 4th, 1841, while Surgeon with the fleet on the Pacific station, he removed, with success, a steatomatous tumor the size of an orange, situated over the common carotid artery. July 13th, the same year, at Lima, he ligated the right femoral artery, for popliteal aneurism. In March, 1842, he removed a ball lodged immediately over the great sciatic nerve, which lies in the hollow between the great trochanter of the femur and the uberosity of the oschum—which caused paralysis of the limb—with success. In September, 1842, he removed a scirrhus growth from the lower lip, with complete relief, leaving no disfigurement. In 1843, he successfully excised the shoulder-joint (reported in Am. Jour. Med. Sci., October, 1846). Many other important operations have been performed by him. Some few of his cases have already been reported in the American Journal of Medical Science. His last cruise was under Admiral D. D. Porter, as fleet-surgeon of the Mississippi Squadron, in 1863.

Dr. PINKNEY was always a very regular attendant of the meetings of the American Medical Association, when in the United States, and during his trip to California, in 1871, took copious notes of all matters of interest *en route*, and recorded many incidents that were amusing and instructive.

POLLOCK, ALEXANDER McCANDLESS, M. D., of Pittsburgh, Pa., was born in Clinton, Allegheny Co., January 7, 1820. His paternal ancestors fled from Scotland to Ireland at the time of the persecutions of Claverhouse, from which latter country his immediate branch emigrated to America in 1721. His maternal grandfather (McCandless) came directly from Scotland.

The subject of this sketch is the son of Dr. John Pollock, a respectable practitioner, who for forty years, in a country village, administered to the wants of the community, and whose ear was ever open to the plaint of the poor as to the demands of the rich. After having passed through the public schools the subject of this sketch was sent to Jefferson College, Cannonsburgh, Pa., where he completed his academic education. He studied medicine with his father, and attended lectures at the Medical College of Ohio, graduating in 1841.

Immediately after he opened an office in Clinton, where he resided until 1844. In 1845 he removed to Pittsburgh, where he has since been, in the enjoyment of an extensive and remunerative practice. This has consisted largely of surgical cases, in which he has been very successful.

His knowledge of the most approved procedures in all branches of this art is extensive, and in operations he is self-reliant and bold. The acuteness of his well-stored mind and his familiarity with anatomy and the laws of mechanics enable him in emergency and on the instant to devise new and efficient methods and expedients.

We are indebted to him for the invention of the wire loop as a substitute for the ligature, in the treatment of aneurism, but indeed it can be used in all cases where the ligature is required. This method is described in the *New York Journal*, for 1869, but had been used by him since the winter of 1859-60. He also invented an improved trocar for ovariectomy and other purposes, described in the Transactions of the American Medical Association for 1871, p. 275.

The Doctor has taken an active part in the State and national medical organizations, and has attended the meetings with much regularity. He is an intelligent and conscientious observer of the code of medical ethics, an enthusiastic lover of his profession, and an ardent advocate of a higher and better standard of education. At home he is not only known as the accomplished surgeon, but as the skillful, attentive and sympathetic physician and noble-hearted gentleman, highly esteemed by the whole community.

He is a member of the Allegheny County Medical Society, and was its President in 1868; of the Pennsylvania State Medical Society, and its President in 1872; of the American Medical Association, and has been since 1850, and was one of the Vice-Presidents in 1873; and an honorary member of the California State Medical Society. He is an Associate Fellow of the College of Physicians, Philadelphia. He has been several times elected a member of the Select and Common Council of the city of Pittsburgh, but has never taken that kind of interest in matters unconnected with his profession that would distract his attention from medicine.

Dr. Pollock has been connected with Mercy Hospital as Surgeon almost from its foundation. His unremitting attention and success caused his wards to be constantly filled with interesting cases—many of them from distant parts of the State, giving the institution a more than local usefulness and reputation. He is still one of the consulting staff.

He has much valuable material collected for publication, but want of time and poor health has thus far prevented him from preparing it for the press. An examination of the files of the Transactions of the Pennsylvania State Medical Society contains many papers from him, and will give some idea of his ability as a writer, as well as of his great industry and the importance of his original observations and work as a surgeon.

Dr. Pollock is united in marriage to Eleanor Lauther Sterrett. They have three children living—Lizzie M., Ella J. and Blanche Z. .

RATHBONE, JOSHUA HENRY, M. D., of Jamestown, N. Y., was born in Augusta, Ga., August 12, 1832, and died at his residence in Jamestown, November 21, 1877. His parents were from New England, his father a native of Rhode Island, and his mother of Massachusetts. The subject of this sketch lived in Augusta, Ga., until he attained his fourteenth year, and then went to Providence, R. I., where he prepared for and entered Brown University, where he graduated. Subsequently, he was a student in Heidelberg University for several years. He also traveled extensively through Europe, acquiring the languages and

general knowledge of the sciences and the world. He attended medical lectures at Harvard in 1855-56, and at the Pennsylvania Medical College in Philadelphia, 1856-57, where he graduated M. D. In the year 1858, he commenced the practice of medicine in the city of Buffalo, but in 1860 he removed to Jamestown, where he resided until his death. For some years he served as Pension Surgeon, and had been, while a student, Secretary of the Rhode Island State Medical Society, and was for some years President of the Chautauqua County (New York) Medical Society. He was a delegate from the latter to the American Medical Association in 1871, and after the meeting adjourned devoted some time to sight-seeing throughout the State of California. He was possessed of a competency and therefore gave much of his time to literary pursuits and a cultivation of the sciences. The Doctor was a member of the New York State Medical Society; the Chautauqua County Medical Society, and the American Medical Association, and an honorary member of the California State Medical Society. Dr. Rathbone was united in marriage to Miss Eliza Adams, of Augusta, Ga., in 1858; they had two daughters and one son.

ROBERTS, ABEL CUMMINS, M. D., of Fort Madison, Iowa, was born in Queensbury township, Warren Co., New York, January 15, 1830. He was the fifth child of Jonathan and Melita (Cummins) Roberts, who had a family of fourteen. In his youth he attended the common winter district schools and in the summer worked on his father's farm. As he

grew older and advanced in education, he attended the High School at Adrian, Mich., for one term, but most of his studies were pursued at odd times at home. He selected medicine as a profession, and bent all his energies to acquire a sufficient degree of knowledge to enable him to properly pursue it. After making such progress as he could, with this end in view, he attended lectures during the winter of 1850-51, at the University of Michigan. His means being too limited to complete his studies, he went to the Eldorado of America—California—where he spent two years. In 1853, having accumulated a considerable sum, he returned, and again attended lectures at the University and graduated M. D., in 1854. The same year he began to practice his profession in Otsego, Mich. In 1859, he removed to Fort Madison, Iowa, and engaged actively in the practice of his profession. In 1862 he was appointed Contract Surgeon in the Government Hospital at Keokuk. In March, 1863, he was commissioned Surgeon to the Twenty-first Missouri Regiment, and served with it till mustered out in April, 1866. Returning home, he resumed practice. The Doctor is a man of wide popularity, and in 1869 was elected treasurer of the county, holding the office for six successive years. In 1873, he was elected Mayor of Fort Madison. He was united in marriage in 1854, to Amelia A. Cole, of Ann Arbor, Michigan, but a native of New York. They have three children, all sons. Frank, the oldest, is a physician, now a partner in practice with his father. Dr. Roberts is often called upon to perform important surgical operations on patients from a distance. This was par-

ticularly the case since his return from service in the army; indeed he found a number of cases waiting for him. He has, for instance, ligated successfully the left subclavian artery, and performed many other capital operations. He was in all the battles in Mississippi, Tennessee and Alabama. After each, the medical officers were kept busy operating, for several days and nights without rest. When the army was disbanded, he returned home and was appointed Pension Surgeon; but being then, as now, owner and editor of the Fort Madison *Democrat*, he was deposed for political reasons in 1876. He is a member of the Iowa State Medical Society, and was a Delegate from it to the American Medical Association, in 1871. He was Professor of Theory and Practice of Medicine in the College of Physicians and Surgeons at Keokuk, in 1862-63, and delivered two courses of lectures. The Doctor is a man of great mental activity and untiring industry and perseverance, and popular and successful in whatever he undertakes. He is a member of the Masonic order, and at present High Priest of the Chapter at Fort Madison. A member of the Fort Madison Medical Association, the American Medical Association, and an honorary member of the California State Medical Society.

ROBINSON, MATTHEW FULLERTON, M. D., of Newville, was born near Greencastle, Franklin Co., Pa., April 27, 1820, died at his residence, Newville, Cumberland Co., January 7, 1874. His grandparents were Scotch-Irish, and among the earliest settlers in Franklin County. He received a good education at

the best schools in the Cumberland Valley. His medical degree was obtained from the Washington University of Baltimore, in 1847. In the spring of this year he opened an office at Greencastle. The following year he removed to Mercersburg, where he practiced with success for two years. In 1849, he removed to Cashtown, in Adams County, where he remained until 1854, when he removed to Newville, where he permanently located and enjoyed a full practice up to the time of his death. He was an active and useful member of the Pennsylvania State Medical Society, and of the Cumberland County Medical Society from the date of its organization. He attended the meeting of the American Medical Association, at San Francisco, in 1871, as a delegate from the former. He was an honorary member of the California State Medical Society. The Doctor was united in marriage with Martha F., daughter of A. B. Rankin, Esq., of Greencastle. His wife, with seven children, survived him—five sons and two daughters—Robert E. S., is a physician; Andrew R., Mervine F., Mary, (since deceased,) James D., Edwin, and Effie.

ROSS, JAMES, M. D., of Clarion, was born in Indiana, Indiana Co., Pa., December 8, 1813. His father was a farmer. The Doctor in his youth attended the public schools of his neighborhood during school season, and subsequently the Academy in the town of Indiana. In the pursuit of more advanced studies he for some years attended Hanover College, in the State of Indiana. His medical studies were commenced under the supervision of Dr. James M.

Stewart, in his native place, and after attending the usual courses of lectures he graduated M. D., at the University of Pennsylvania. In 1853 he commenced practice in Smicksburg, Indiana County, but in 1840 removed to Stratonville, Clarion County, and the following year from there to Clarion, the county-seat, where he has since remained actively employed in the duties of his profession. The Doctor married early in life, and has had twelve children—six sons and six daughters. Five sons and one daughter are now living. Dr. Ross is a member of the Pennsylvania State Medical Society, of the Clarion County Medical Society, of the American Medical Association since 1870, and honorary member of the California State Medical Society. He attended the meeting of the National Medical Association, at San Francisco, in 1871. After the adjournment of the Convention he visited the various places of interest on the Pacific, and stopped for a day at Salt Lake City.

RUSSELL, JOHN WADHAMS, M. D., of Mount Vernon, Ohio, was born in Canaan, Litchfield County, Conn., June 28, 1804. He is the son of Stephen Russell, a man of influence and character in his time, who was repeatedly chosen to represent the people in the State Legislature, and once by a unanimous vote of the district. The subject of this sketch first attended the district school, and then prepared for college at Morris Academy. Having advanced sufficiently he entered Hamilton College, New York, in 1821. His health soon after failed and he was advised by physicians to seek a residence, for a time at least, in a milder

climate in some Southern State. Accordingly he went south, and obtained a situation as teacher in the academy at Red Bank, Colleton district, South Carolina. He became warmly attached to his southern friends, and had, he says, "a noble class of pupils." Dr. Sheridan, he says, "was not only a friend but a father to him," and by his advice he commenced the study of medicine in 1823. Dr. Russell returned to Connecticut in 1824, and continued his medical studies under Dr. Alanson Abbe, of Litchfield. Having studied and reviewed the course prescribed to office-students, he attended lectures in 1825 and 1826, at Yale College, and then a second course at Berkshire Medical College, in 1826. The following winter he went to Philadelphia, and became a private pupil of Dr. George McClellan, attending lectures at Jefferson Medical College, Philadelphia, where he graduated in 1827. In April of this year he began practice in partnership with his preceptor in Litchfield, where he continued one year, giving a course of lectures on anatomy and physiology to the medical students, and such members of the Law Class as wished to attend. Although his prospects were good for gaining a practice in this place, nevertheless, in the spring of 1828, he removed to Sandusky City, Ohio, and in the fall of the same year settled at Mount Vernon, where he has from that time to the present been actively engaged in the practice of medicine and surgery. In the latter branch he has been remarkably successful, and has performed as many, if not more, capital operations as any inland town surgeon in Ohio. Dr. Russell has frequently cut for stone, and on one occasion upon two patients

on the same day. For encysted calculus he has performed the high operation with success. During the late war the Doctor was one of the Examining Surgeons, for admission of Volunteer Surgeons into the army, and was President of the Board. He was for many years President of the Mount Vernon Bank, and is now President of the Phoenix Mining and Mineral Land Company of Colorado. He has been solicited on several occasions to accept Chairs in many medical colleges in Ohio, but he has devoted his energies to private practice, which has been the favorite pursuit of his life. He has been a member of the Medical Society of Knox County, and also of the Ohio State Medical Society from their organization, and was President of the latter; of the American Medical Association since 1860, and attended the meeting in San Francisco in 1871, and is an honorary member of the California State Medical Society. He has been twice married; first, in the spring of 1828, to Eliza, daughter of Hon. William Beebe, of Litchfield, Conn. He has two children living—Ann Eliza and William Beebe. His second marriage was in 1872, to Ellen M. Brown, of San Francisco, Cal. His daughter, Ann Eliza, now Mrs. Cooper, accompanied him to California. They both enjoyed the trip, and often refer in terms of fond recollection to the many pleasant incidents of the journey, and the kindness and hospitality experienced from the profession and the citizens of California. After the adjournment of the Association they made excursions to some noted places on the Pacific coast, and stopped three days at Salt Lake City *en route*.

SAYRE, DAVID MARTIN, M. D., of Newton, N. J., was born in Hanover, Morris Co., March 26, 1807; died, suddenly, at Newton, August 3, 1876. He was the youngest child of Ebenezer Sayre and Charity Cooper, who was a second wife. His paternal ancestor, Thomas Sayre, came from Bedfordshire, England, to Lynn, Mass., in 1635, settling in South Hampton, Long Island, in 1640. One of his sons, Joseph, removed to New Jersey, and was an associate in the settlement of Elizabethtown, in 1667, being the progenitor of the Sayre family in the State. The subject of this sketch, after receiving a common school education, commenced the study of medicine with Dr. John S. Darcy, late of Newark, but then of Hanover. Before he was of legal age he began to practice in Sparta, Sussex County; in the following July, having become of age, he was regularly licensed by the State Censors, and continued to practice in the place until 1843. In the meantime he attended lectures at the College of Physicians and Surgeons, New York, and in 1836 received the degree of M. D. In 1843, he removed to his native town, Hanover, and formed a co-partnership with Dr. Timothy Kitchell; but in a short time the association was dissolved, and he was prevailed upon to return to Sparta, where he enjoyed a good practice, and acquired large property. In 1863, desiring to retire somewhat from the care of a laborious practice, he removed to his homestead farm at Hanover; but his habits and tastes unfitted him for a farmer, and in 1865 he removed to Newton, Sussex County, and formed a partnership in the drug business, which, however, was dissolved at

the end of a year, when he again opened an office and resumed general practice. Dr. Sayre was an accurate and laborious man, and had a love of study and a desire to be well posted in his profession, which feeling on two several occasions induced him to attend lectures during the winter in New York. For some time before his death he, as well as his medical friends, suspected that he had a serious disease of the heart, which finally proved fatal. He left, by will, \$5,000 to a public library in Newton, "to be securely invested, and the interest applied to the purchase of books." He was a good financier, with a strong taste for acquiring wealth. Although not brilliant as a scholar or as a physician, he had a philosophic, well-balanced mind, and discharged all the duties of an intelligent practitioner and an upright citizen, with marked fidelity, and to the satisfaction of the community. He was a member of the Essex District Medical Society, of the New Jersey State Medical Society, of the American Medical Association, and an honorary member of the California State Medical Society.

SCRIBNER, JAMES WILLIAM, M. D., of Tarrytown, Westchester Co., New York, was born in that place, January 17, 1820. He is the son of a prominent physician, whose ancestors were residents of Westchester County prior to the Revolution. His grandmother (on the mother's side) was an Ireland, and came to this country from England before the Revolution; they were relatives of the late Dr. Ireland, Surgeon-General of Ireland.

The subject of this sketch, until the age of fifteen, attended the public schools, when he was transferred to the Collegiate School at Bedford, of which Samuel Holmes was principal. Having acquired a good classical education, he commenced the study of medicine with his father, who was then, and had been many years, one of the physicians in charge of the Westchester Almshouse, where he had ample opportunity of seeing much practice while yet a student. After attending three courses of lectures at the College of Physicians and Surgeons in New York city, he graduated M. D. in 1847.

The following year he commenced practice in his native town, where he continues to reside, having invariably been favored with a large, remunerative and responsible practice. He became his father's successor in the profession, and was appointed to fill his place at the almshouse. This is one of the largest and best conditioned of its kind in the State, and much of its efficiency is due to the executive ability and practical good sense of Dr. Scribner.

As a physician he is attentive, and as a surgeon prompt in decision, full of resources and a skillful operator. His medical brethren accord to him the highest professional attainments, and have rewarded him with the leading consulting practice as well as the honors of official position in the medical organizations. He is a member of the Westchester County Medical Society, has in turn held most of the offices, including the Presidency, and was a Delegate from it to the National Medical Association in 1871; of the State Medical Society, of the American Medical Associ-

ation, and an honorary member of the California State Medical Society. He has been President and Director of the Westchester County Agricultural Society; President and Trustee of the Village Corporation, and also of the Board of Education.

The Doctor was united in marriage with Margaret E. Miller. They have two daughters—Josie and Ella.

SHIVELY, JOSEPH WARREN, M. D., of Kent, Portage Co., Ohio, was born in Knox Township, Columbiana Co., September 24, 1833. His father was a farmer, whose ancestors had immigrated to America from Germany, and settled in Pennsylvania in 1730. His great-grandfather on his mother's side was an Englishman, but took sides with the Patriots in the Revolution, and was killed at the battle of Germantown. The Doctor received a good education at the common schools, and afterward attended an academy at Salem, Ohio. Having acquired a fair proficiency in Latin and mathematics, he was engaged for several years in teaching school. He began the study of medicine in 1853, with Dr. A. Metz, of Massillon, and attended his first course of lectures in 1855 and 1856, at the University of Michigan. At the close of the session, he became partner with his preceptor, and continued in the practice of medicine for three years. He graduated at the Cleveland Medical College in the spring of 1860, and in the same year he entered the naval service as Assistant Surgeon. On the breaking out of the war, he was ordered to the Gulf Squadron, and served there for two years, participating in the

capture of New Orleans by Admiral Farragut. He was subsequently promoted to Surgeon, and served on various vessels and stations till 1865, when he resigned his commission, and returned to civil practice at Massillon. He remained there but one year, when he removed to Kent, where he has since resided—engaged in the duties of his profession—with the exception of a brief period spent in Cleveland. He is a member of the American Medical Association, of the Ohio State Medical Society, and is an honorary member of the California State Medical Society. He attended the meeting of the American Medical Association in San Francisco, in 1871. After the adjournment of the convention, he visited various places of note in California, including the Yosemite Valley, the geysers, the big trees and some gold mines; also the city of Salt Lake *en route* home. He is united in marriage to Amelia L. Kent, and has two children living—Emily J. and Joseph K.

SMITH, FRANCIS GURNEY, M. D., of Philadelphia, Pa., was born March 8, 1818. His father was one of six brothers, all of whom lived to be octogenarians, and have all celebrated their golden weddings. His preparatory education was conducted by the "Storm King," James P. Espy, and S. W. Crawford. He graduated at the University of Pennsylvania, receiving the honors of A. B. and A. M. The Doctor's medical studies were pursued under the direction of his brother, Dr. Thomas Mackie Smith. He attended lectures and graduated M. D. in the University of Pennsylvania, in 1840. In 1841-42 he was

Resident Physician at the Pennsylvania Hospital, and afterwards, at Will's Ophthalmic Hospital. In 1843 Dr. Smith opened an office in Philadelphia, and soon acquired a good practice. He devoted much attention to obstetrics and diseases of women and children. Throughout his professional life, he has been a careful reader and laborious student. He translated and made additions to Barth and Roger's Manual of Auscultation and Percussion, published in 1849. He was one of the authors of the Compendium of Medicine for Students, with Dr. Neill, in 1848, which has had a large sale and passed through many editions. For five years—from 1849 to 1854—he was one of the editors for the Philadelphia *Medical Examiner*. In 1854 he was co-editor of the second volume of Drake's Diseases of the Mississippi Valley. He also edited, with additions, the three American editions of Carpenter's Human Physiology, from the fourth English edition; in 1876, the eighth English edition; also his work on the Microscope in 1856; Marshall's Outlines of Physiology, Human and Comparative, with additions in 1868. He is the author of experiments on digestion, performed on Alexis St. Martin in 1856. Besides these, he has contributed many articles to the current medical journals. The Doctor was Lecturer on Physiology in Philadelphia Medical Association, and Professor of Physiology in the Medical Department of Pennsylvania College. In 1863 he was elected Professor of the Institutes of Medicine in the University of Pennsylvania, as successor to Professor Samuel Jackson, a position he has filled with ability and increasing reputation. He has continued to be a

member of the American Medical Association since 1849, and was Vice-President in 1870, and has long served as Chairman of the Committee of Publication; is a Medical Director in the National Life Insurance Company; Attending Physician to St. Joseph's, Episcopal and Pennsylvania Hospitals; member of the College of Physicians; of the Pennsylvania State Medical Society; of the Philadelphia County Medical Society; of the Obstetrical Society of Philadelphia, of which he was the first President; of the Pathological Society of Philadelphia; of the Academy of Natural Sciences; of the American Philosophical Society, and an honorary member of the California State Medical Society. In 1844 Dr. Smith was united in marriage with Catherine Madeline Dutilh. They have four children—three sons and one daughter. The latter, Anna Dutilh, accompanied her father to California, to attend the meeting of the American Medical Association in 1871. His oldest son, Robert Meade, has graduated in medicine, and is now a rising practitioner in Philadelphia.

STANLEY, ELWOOD, M. D., of Sandusky, Ohio, was born on a farm near Salem, Columbiana Co., October 23, 1823. He is the son of Joshua and Rachael Stanley, members of the religious society of Friends, and natives of Virginia, who removed to Ohio and were among the early settlers. The subject of this sketch was early left an orphan. His mother died when he was but one year old; his father nine years later. The "Friends" do not neglect the orphans of their members. In this case they reared and gave the Doctor

a good education at the seminary at Mount Pleasant, Jefferson County. After leaving the academy he taught in a district school for several terms, to raise funds to pursue his medical studies. His preceptors were Professors Kirtland and Ackley, of Cleveland. He attended lectures at the Cleveland Medical College, where he graduated M. D. in 1849. The same year he commenced to practice in Canton, Stark County. Cholera prevailed to an alarming extent that year in Sandusky, and Dr. Stanley, in July, volunteered his services to those afflicted and removed to that city, rendering most valuable and acceptable aid. The city of Sandusky has suffered severely from cholera on several other occasions, particularly in 1851 and 1854. Throughout the epidemic the Doctor was remarkably successful in the treatment of the disease. His youthful vigor, great professional zeal, and devotion to duty, won him a host of friends, which he has always retained. He has served many years in the Board of Health, and no more able officer could have been chosen. He is not only vigilant, but well informed and persevering, and impartial in the discharge of his duties. The front rank as a health officer and as a courageous and skillful physician has been conceded to him by his professional brethren and by the community. Dr. Stanley has not written much, but has nevertheless given a few good articles to the medical journals. In addition to being Health Officer for several years, he was Physician for three years in the Infirmary, and also Physician to the Sick Sailors at this port, and is at present Coroner of Erie County, Ohio. He was elected to the Sandusky City Council, but

declined. The Doctor is married and has an adopted son named Frank Stanley. He is a member of the Erie County Medical Society, which he represented at the meeting of the American Medical Association, in San Francisco, in 1871; of the Ohio State Medical Society; of the American Medical Association, and an honorary member of the California State Medical Society. He has received an *adeundam* M. D. degree from the Cincinnati Medical College.

STEVENS, LUMAN SEELY, M. D., of Portsmouth, Ohio, was born in the city of New York, January 4, 1823. He is of Scotch descent. His education was received at the public schools of New York, and at the Academy of New Canaan, Conn., and also at the Collegiate Institute at Spring Arbor, Mich. His medical degree was received from the University of Michigan, 1852. The same year he began to practice at Monroe City, in the latter State. In 1858, he removed to Franklin, Tenn., where he remained engaged in practice until the outbreak of the war, when he removed to Toledo, Ohio. He served as Surgeon with the Seventh Michigan Regiment of Volunteers, in 1862-63. After leaving the Army he opened an office at Petersburg, Mich., where he remained in practice from 1864 to 1867. In the latter year he removed to Three Rivers, where he enjoyed a large and responsible practice. He is now (October, 1877,) about to settle in Portsmouth, Ohio. He is a member of the Michigan State Medical Society, of the American Medical Association, of the St. Joseph Valley Medical Association, and an honorary member of

the California State Medical Society. Dr. Stevens, in 1853, was united in marriage to Louisa R. Fleming. They have one child, a daughter.

STILLE, ALFRED, M. D., of Philadelphia, Pa., was born in that city, October 30, 1813. He is a descendant on his father's side of one of the first Swedish colonists on the Delaware River, and on his mother's side of Tobias Wagner, Chancellor of the University of Tübingen in 1658. The subject of this sketch graduated A. B. at the University of Pennsylvania in 1832, and M. D. from the same institution in 1836. He was a private pupil of Dr. Thomas Harris, from 1832 to the time of his graduation.

In 1836 he was Resident Physician in the Philadelphia Hospital, after which he for two years and a half prosecuted his studies in Europe. On his return home he was Resident Physician in the Pennsylvania Hospital for two years, from 1839 to 1841. In the latter year he commenced practice in Philadelphia. From 1845 to 1851, Dr. Stille was lecturer on General Pathology and Practice of Medicine in the Philadelphia Association for Medical Improvement; and held the chair of Theory and Practice in the Pennsylvania Medical College from 1854 until 1859. In June, 1864, he was elected to the same chair in the University of Pennsylvania, a position which he still holds, and has filled with eminent ability. On the organization of St. Joseph's Hospital, in 1849, he was appointed one of its Visiting Physicians, and resigned the post in 1877. During the civil war he was one of the Visiting Physicians of the United States Satterlee Hospital.

From 1865 to 1871, he was one of the Physicians and Clinical Lecturers in the Philadelphia Hospital.

Notwithstanding the imperious duties of a teacher and practitioner, Dr. Stille has found time to do a very large amount of laborious literary work, all of which has given evidence of careful study, and has been most acceptable to the profession. In 1844 he and Dr. J. F. Meigs translated from the French Andral's "Pathological Hamatology." In 1845, he delivered an address before the Philadelphia Medical Association, which was published by request; in 1846, one before the same Association on Medical Education in the United States, which attracted much attention both at home and abroad, and in which the lengthened term of medical instruction recently adopted by several leading schools in this country was earnestly advocated. In 1848 was published his *Elements of General Pathology*, which received high encomiums in this country and in Europe, and was soon out of print. A second edition of the work has since been announced, but has not yet appeared. In 1850 he made a report on Medical Literature to the American Medical Association. In 1854 he delivered the Introductory Lecture in the Medical Department of Pennsylvania College, and also in 1856, his theme on the latter occasion being "The Unity of Medicine." In 1857, he made the valedictory address to the graduates of the Medical Class of Pennsylvania College. In 1859 he addressed the Linnæan Association of Pennsylvania, on "Humboldt's Life and Character." In 1860 Dr. Stille published the first edition of his great work in two volumes, on *Materia Medica and Therapeutics*, which

had up to 1878 gone through four editions. In 1862 he published an address on "War as an Instrument of Civilization." In 1863, when President of the Philadelphia County Medical Society, he delivered an address which was printed. In 1866 a lecture on Morbid Anatomy, as an introduction to the clinical course at the Philadelphia Hospital, was printed by the class. In 1867 he published a valuable monograph on Epidemic Meningitis. In 1871 his address as President of the American Medical Association, was published in the transactions and in pamphlet form, and in 1873 a lecture on Epidemic Cholera. It is announced that there will shortly appear a National Dispensatory, of which Dr. Stille and Prof. Maisch are to be the authors. Besides the writings above mentioned he contributed a paper on Dysentery, to the Essays published by the United States Sanitary Commission during the civil war, and at various times many reviews and minor articles to the medical journals. Dr. Stille made numerous and important additions to the second edition of Wharton and Stille's Medical Jurisprudence, of which his late brother, Dr. Moreton Stille, was one of the authors. By his devotion to the best interests of the profession, and by his scientific and literary ability, he has won the admiration of the medical brethren of the United States, from whom he has received many marks of respect and gratitude.

Dr. Stille was one of the secretaries of the convention which founded the American Medical Association, and held the same office for several years in the latter body; from 1859 to 1863 he was President of

the Philadelphia Pathological Society; of the Philadelphia County Medical Society in 1862; and of the American Medical Association at its meeting held at San Francisco, in 1871.

Dr. Stille is A. M. and M. D., University of Pennsylvania; Hon. A. M., Yale University; and L.L. D., Pennsylvania College. He is a Fellow, and was for some years Secretary of the College of Physicians of Philadelphia; a member of the Philadelphia County Medical Society, and of the Pathological Society of Philadelphia; of the American Philosophical Society, and of the Historical Society of Pennsylvania; a corresponding Fellow of the New York Academy of Medicine, and an honorary member of the New York Neurological Society, and of the Medical Societies of the States of Rhode Island, New York and California.

STORER, HORATIO ROBINSON, M. D., of Boston, Mass., was born in that city, February 27, 1830. He is the son of Dr. D. Humphreys Storer, of Boston, formerly Professor of Obstetrics and Medical Jurisprudence in Harvard University, and President of the American Medical Association. His younger brother, Francis H. Storer, is Professor of Agricultural Chemistry at Harvard.

The subject of this sketch attended the Boston Latin School from 1841 to 1846. He then entered Harvard University, where he graduated A. B. in 1850. In college he showed a marked inclination towards the natural sciences; was President of the Harvard Natural History Society; and was a private pupil of Agassiz and Asa Gray, and accompanied Jeffries

Wyman on a trip to Labrador, himself publishing a paper on the fishes of that country ("Observations on the Fishes of Nova Scotia and Labrador, with Descriptions of New Species."—*Boston Journal of Natural History*, 1850; pp. 247-70; pl. 7-8), which had previously been studied only by Sir John Richardson. In this Dr. Storer gave evidence of the training he had received from his father, whose celebrated works on the "Fishes of Massachusetts, and North America" were published by the American Academy of Arts and Sciences. While still an undergraduate, he also spent a summer in Russia.

His medical studies were under the direction of his father and his associates in the Tremont Medical School of Boston, the first organization in this country for thorough and systematic medical instruction, by examinations throughout the entire year; but, at the same time he attended lectures at Harvard College, where he received his degree of M. D. in 1853. Subsequently, during 1866-68, he also went through the Harvard Law School, to better fit himself for teaching Medical Jurisprudence, receiving the degree of LL. B. After his graduation in medicine, he went to Europe, and spent two years in study at Paris, London and Edinburgh, during one year of which he was assistant in private practice to Sir James Y. Simpson.

In 1855 he returned to his home, and opened an office in Boston, where he speedily acquired a select and remunerative practice. From the outset of his professional life he identified himself with leading medical men and medical institutions, not in Boston merely, but throughout the State of Massachusetts.

Dr. Storer is a man of high culture, with a vigorous and well-trained mind, a ready and forcible writer and a good debater. In 1853 he became a member of the Massachusetts Medical Society, and was generally regular in his attendance; contributed papers, and always took an active part in the proceedings and discussions. In 1865 he was elected to the chair of Obstetrics and Medical Jurisprudence in the Berkshire Medical College, a position which he filled satisfactorily until the close of this institution in 1869. The Doctor had been assistant to his father while a teacher of these branches in Harvard University, and was therefore entirely familiar with them. His manner as a lecturer was well calculated to arouse enthusiasm in the student, for he was not only thorough, but practical, and took occasion to give direct expositions of uterine diseases in the living subject to his class, which no one had previously ventured to do, save Professor J. P. White, of Buffalo.

He was the first in this country (Dr. Peaslee having been the second), to teach gynæcology proper, as contra-distinguished from obstetrics or midwifery, his separate course upon the diseases of women, unconnected with gestation, childbed or the puerperal state, comprising no less than sixty lectures. For several years, he gave at Boston a semi-annual course to medical graduates, upon the surgical diseases of women, refusing to admit any applicant who was not marked in good standing in the American Medical Association. These lectures were attended by physicians from all parts of the country.

With Drs. Atlee, of Philadelphia, Peaslee, of New

York, and Kimball, of Lowell, he came to monopolize the ovariectomies of the United States and Canada; but finally, in 1872, his health failed. In consequence of long continued and unremitting work, he got an attack of septicæmia, from which he barely escaped with his life. He then went to Europe, and there passed five years (1872-77), during which he took occasion to study practically, on a very extended scale the fevers of Southern Italy. He has now returned to this country, and for the present has established himself, because of its comparatively mild climate, and to escape the engrossing work that would have been inevitable for him at Boston, at Newport, R. I.

His contributions to medical literature were early marked by original thought and earnestness of purpose. In 1856 he represented the Boston Lying-In Hospital in the American Medical Association, and became a member of that body at the outset of his professional career, and has ever since been a constant attendant at its meetings.

He attended the meeting of this body held at San Francisco in 1871, and was detained in California, by professional engagements, until October. By a special invitation of the California State Board of Health, he delivered a lecture in the State House at Sacramento, on "Female Hygiene." At the urgent solicitations of the physicians of San Francisco, he repeated the same lecture, in May, before a large audience in that city. This lecture was published in the Transactions of the California State Board of Health for 1871.

The great activity of his professional life can best

be presented by giving a list of the institutions to which he has been attached: Physician to the Boston Lying-In Hospital; to St. Elizabeth's Hospital for Women, and to St. Joseph's Home; Consulting Surgeon to Carney General Hospital; Surgeon to the New England Hospital for Women and Children. A member of the Massachusetts Medical Society; of the Suffolk District Medical Society; of the American Academy of Arts and Sciences; of the Boston Society for Medical Observation; of the Massachusetts Medical Benevolent Society; of the Obstetrical and Medico-Chirurgical Societies of Edinburgh; one of the founders, Secretary, and now President of the Gynæcological Society of Boston (which was the first society devoted to this specialty ever organized), and the active editor of its journal for four years; corresponding member of the Obstetrical Societies of Berlin and London; also, of the New York Medico Legal Society; honorary member of the California State Medical Society, and also of the Canada Medical Association, the Medical Society of the Province of New Brunswick, the Louisville Obstetrical Society, and the Medical Society of Sorrento, Italy. He was admitted to the Medical Register of Great Britain, by vote of Branch Medical Council of England, December, 1876, etc. He was President of the Association of American Medical Editors, and made an admirable address before them, in San Francisco, in 1871. He was Prize Essayist and Secretary of the American Medical Association in 1865, and Vice-President in 1868; a member of the Massachusetts Lunacy Commission in 1863, and was one of the incorporators of the Massachusetts Infant Asylum for Foundlings.

The following is a partial list of the medical works and papers published by Dr. Storer. It has been compiled from the catalogue of the Surgeon-General's Library, and a list made in 1867 by the publishers of "Is it I?" and from such medical periodicals as were readily accessible. As Dr. S. himself has kept no record of what he has done, there is reason to believe that some of his papers may have escaped this search :

1855. "The Obstetric Memoirs and Contributions of Sir James Y. Simpson, Professor of Midwifery in the University of Edinburgh." Edited by his assistants, Drs. William O. Priestley (afterwards Professor of Midwifery in King's College, London, and President of the London Obstetrical Society), and H. R. Storer. Two large volumes. Edinburgh, 1855. Adam & Charles Black. Reprinted in this country in 1856, with a preface by Dr. Storer. Philadelphia, J. B. Lippincott & Co.

"A Word in Defence of an American Surgeon" (Dr. J. Mason Warren, of Boston). Controversy with Dr. Gillespie, of Edinburgh. Letter I. Read before the Medico-Chirurgical Society of Edinburgh. London Medical Times and Gazette, May, 1855. Letter II. American Journal of Medical Sciences. Philadelphia, October, 1855.

"Slippery-Elm Tents for Dilatation of the Cervix Uteri. Their First Suggestion." Article I. Read before the Medico-Chirurgical Society of Edinburgh. Association Medical Journal of London. May, 1855. Article II. Boston Medical and Surgical Journal, November, 1855.

"Boston Lying-In Hospital Reports." Boston Medical and Surgical Journal, 1855, 1856, etc.

1856. "Cases Illustrative of Obstetric Disease." Boston Medical and Surgical Journal, 1856 to 1865.

"Operations for Intra-Mural Fibrous Tumor." Boston Medical and Surgical Journal, September, 1856.

"Caustic Potash as an Application to the Interior of the Uterus; Its first Suggestion." Article I. Read before the Suffolk District Medical Society. Boston Medical and Surgical Journal, October, 1856. Article II., Ibid., October, 1858. Article III., Ibid., July, 1859.

"Cases of Nymphomania." Read before the Boston Society for Medical Observation, July, 1856. American Journal of Medical Sciences, October, 1856.

"New Form of Intra-uterine Pessary." Read before Suffolk District Medical Society. Boston Medical and Surgical Journal, November, 1856.

Review of Charles Clay's "Complete Hand-book of Obstetric Surgery." Boston Medical and Surgical Journal, November, 1856.

1857. "Removal of the Cervix Uteri for Non-Malignant Hypertrophy." New Hampshire Journal of Medicine, April, 1857.

"Report of the Committee appointed by the Suffolk District Medical Society, to consider whether any future legislation is necessary on the subject of Criminal Abortion; and to report to the Society such other means as may seem necessary for the suppression of this abominable, unnatural, yet common crime." Drs. H. R. Storer (Chairman), H. I. Bowditch, Calvin Ellis. Read before Suffolk District Medical Society, May, 1857. Boston Medical and Surgical Journal, 1857.

"Vesico-vaginal Fistula, and the Operations therefor." American Journal of Medical Sciences. October, 1857.

1858. "Cupping the Interior of the Uterus." Read before Boston Society for Medical Observation, February, 1857. American Journal of Medical Sciences, January, 1858.

1859. "The Use and Abuse of Uterine Tents." American Journal of Medical Sciences, January, 1859.

"Contributions to Obstetric Jurisprudence": Article I. "Is Abortion ever a Crime?" North American Medico-Chirurgical Review, Philadelphia, January, 1859. Article II. "Its Frequency, and the causes thereof." Ibid., March, 1859. Article III. "Its Victims." Ibid., May, 1859. Article IV. "Its Proofs." Ibid. Article V. "Its Perpetrators." Ibid. Article VI. "Its Innocent Abettors." Ibid., July, 1859. Article VII. "Its Obstacles to Conviction." Ibid., September, 1859. Article VIII. "Can it be at all Controlled by Law?" Ibid., November, 1859. The above eight papers were subsequently published in a collective form, 1860, under the title of "Criminal Abortion in America." Philadelphia: J. B. Lippincott & Co.

"Cases Illustrative of Criminal Abortion." Read before the Boston Society for Medical Observation. American Journal of the Medical Sciences, April, 1859.

"The Uterine Dilator: a New Method of Reaching the Uterine Cavity and of Inducing Premature Labor." American Journal of the Medical Sciences, July, 1859.

"Submucous Injection as a Cure for the Toothache of Pregnancy." Boston Medical and Surgical Journal, October, 1859.

1860. Report of the Committee of the American Medical Association, "to investigate the subject of Criminal Abortion, with a view to its general suppression." Drs. H. R. Storer, of Massachusetts (Chairman); T. W. Blatchford, of New York; Hugh L. Hodge, of Pennsylvania; E. H. Barton, of South Carolina; A. Lopez, of Alabama; C. A. Pope, of Missouri; W. H. Brisbane, of Wisconsin; A. J. Semmes, of District of Columbia. Rendered at Louisville, May, 1859. Transactions of American Medical Association, 1860.

1863. "Studies of Abortion." Boston Medical and Surgical Journal, February, 1863, etc.

"Artificial Dilatation of the Os and Cervix Uteri, by Fluid Pressure from Above:" a Reply to Drs. Keiller, of Edinburgh, and Arnott and Barnes, of London. Read before the Suffolk District Medical Society. Boston Medical and Surgical Journal, July, 1863.

"On Chloroform Inhalation during Labor:" A Reply to Dr. Robert Johns, of Dublin. Boston Medical and Surgical Journal, August, 1863.

"The Employment of Anæsthetics in Obstetric Medicine and Surgery." Read before the Massachusetts Medical Society, June, 1863. Boston Medical and Surgical Journal, October, 1863. The above was re-published under the title of "Eutokia: A Word to Physicians and to Women upon the Employment of Anæsthetics in Childbirth." 1863. Boston: A. Williams & Co.

1864. "The Surgical Treatment of Amenorrhœa." American Journal of the Medical Sciences. January, 1864.

"Report of the Massachusetts State Commission on Insanity; consisting of Hon. Josiah Quincy, Jr., of Boston; Drs. Alfred Hitchcock, of Fitchburg; H. R. Storer, of Boston." Massachusetts Legislative Document (Senate 72). February, 1864.

"The Medical Management of Insane Women." Article I. Read before the Suffolk District Medical Society, December, 1863, and American Academy of Arts and Sciences, February, 1864. Boston Medical and Surgical Journal. April, 1864. Article II., Ibid., October, 1864. Article III., Ibid., November, 1864.

"The Relations of Female Patients to Hospitals for the Insane. The Necessity on their account of a Board of Consulting Physicians to every Hospital." Read before the American Medical Association. ico-Transactions of the American Medical Association, 1864.

1865. "The Causation, Course and Rational Treatment of Insanity in Women. A Gynæcist's Idea thereof." Report to American

Medical Association, as Chairman of its Standing Committee on Insanity. Transactions of the American Medical Association, 1865. Reprinted in 1871, by vote of the Association, under the same title. Boston: Lee & Shepard.

"Contributions to Obstetric Jurisprudence." Article IX. "A Medico-Legal Study of Rape." N. Y. Medical Journal, November, 1865.

"The Physical Evils of Forced Abortions." The Prize Essay to which the American Medical Association awarded the Gold Medal for 1865. (Dr. Storer, however, declined to receive the medal or its equivalent, \$100, as the funds of the Association were straitened, but preferred that the sum should remain in its treasury, as a virtual gift from himself.) Transactions of American Medical Association, 1865. The above was, by vote of the Association, ordered to be reprinted for general circulation, and it appeared in 1866, under the title of "Why Not? A Book for Every Woman." Boston: Lee & Shepard. The successive editions have reached many thousand copies.

1866. "Report to the American Medical Association of its Delegate to the Association of Superintendents of Asylums for the Insane." Transactions of American Medical Association, 1866.

"Successful Removal of the Uterus and both Ovaries, by Abdominal Section; the tumor, fibro-cystic, weighing thirty-seven pounds." Read before the American Academy of Arts and Sciences, November 14, 1865. American Journal of the Medical Sciences, January, 1866.

"Contributions to Obstetric Jurisprudence." Article X. "The Abatement of Criminal Abortion by Medical Men." Read before the Massachusetts Medical Society, May 30, 1866. New York Medical Journal, September, 1866.

"The Clamp Shield: an Instrument designed to lessen certain Surgical Dangers, more particularly those of Extirpation of the Uterus by Abdominal Section." Article I. Transactions of the American Medical Association, 1866. Article II. Read before the Massachusetts Medical Society, July 25, 1866. New York Medical Record, October, 1866.

"A New Operation for Umbilical Hernia, with Remarks upon Exploratory Incisions of the Abdomen." Article I. Read before the Suffolk District Medical Society. New York Medical Record, April, 1866. Article II. Ibid., July, 1866.

"The Unfitness of Women for Medical Practitioners." Letter of

Resignation as Surgeon to the New England Hospital for Women and Children. Boston Medical and Surgical Journal, September, 1866.

1867. "Inebriety in Women": an Appendix to the Treatise on Methomania, or Alcoholic Poisoning, by Dr. Albert Day, then Superintendent of the New York State Asylum for Inebriates, at Binghamton. Boston: James Campbell, 1867.

"On the Decrease of the Rate of Increase of Population now Obtaining in Europe and America." Read before the American Academy of Arts and Sciences, December 14, 1858. American Journal of Science and Art (Silliman's), New Haven, March, 1867.

"Is It I? A Book for Every Man." A companion to "Why Not? A Book for Every Woman." Presented to the American Medical Association in 1867. Boston, 1867: Lee & Shepard. (This volume, intended like its predecessor to prevent uterine disease and criminal abortion, has had a very extended circulation.)

"The so-called Chronic Endometritis, and its Rational Treatment." Read by invitation before State Medical Society of New York. Transactions of New York State Medical Society. 1867.

"Self Abuse in Women: Its Causation and Rational Treatment." Western Journal of Medicine. Indianapolis, August 1867.

"The Rational Treatment of Gastric Disturbances during Gestation." Detroit Review of Medicine and Pharmacy, November, 1867.

1868. "Criminal Abortion: Its Nature, its Evidence, and its Law." By H. R. Storer and F. F. Heard, LL. B. Boston, 1868: Little, Brown & Co.

"On Nurses and Nursing, with Especial Reference to the Management of Sick Women." Published for the benefit of St. Elizabeth's Hospital for Women. Boston, 1868: Lee & Shepard.

"The Present Problems in Abdominal Section: Illustrated by a successful case of Double Ovariectomy." Canadian Medical Journal. Montreal, 1868.

"Pocketing the Pedicle: A New and Successful Method of Treating the Ovarian Stump after Excision." Article I. American Journal of the Medical Sciences. January, 1868. Article II. Read by invitation before a special meeting of the New York Academy of Medicine, December 19, 1867. New York Medical Record, January, 1868.

"The Law of Rape." Quarterly Journal of Psychological Medicine and Medical Jurisprudence. January, 1868.

"The Rectum in its Relations to Uterine Disease." Article I. American Journal of Obstetrics, New York, May, 1868. Article II.

Ibid., August, 1868. Article III. Ibid., November, 1868. Article IV. Ibid., February, 1869.

"Removal of Horse-shoe Pessary (Open Lever of Hodge) from the Cavity of the Female Bladder." Article I. Read before Suffolk District Medical Society. New York Medical Record July, 1868. Article II. Journal of the Gynæcological Society of Boston, August, 1870, and Ibid., October, 1870.

"A New Reversible (Direct and Retracting) Speculum." Boston Medical and Surgical Journal, November, 1868. Journal of Gynæcological Society of Boston, May, 1870.

1869. "The Frequency and Causation of Uterine Disease in America." Journal of Gynæcological Society of Boston, July, 1869.

"An Outline History of American Gynæcology." Article I. Journal of Gynæcological Society of Boston, August, 1869. Article II. Ibid., November, 1869. Article III. Ibid., December, 1871.

"Upon Pocketing the Pedicle in Ovariectomy: A Reply to Certain Strictures by Dr. Kimball, of Lowell." Journal of Gynæcological Society of Boston, September, 1869.

"A Defence of Dr. G. H. Bixby, of Boston, against attempted Ostracism by the Censors of the Massachusetts Medical Society." Journal of the Gynæcological Society of Boston. October, 1869. Reprinted under the title of "Fiat Justitia Ruat Cœlum," as an open letter to the Fellows of the Massachusetts Medical Society.

"Physicians in their Relations to Invalid Women." Journal of the Gynæcological Society of Boston, November, 1869.

"Golden Rules for the Treatment of Ovarian Disease." Journal of the Gynæcological Society of Boston, December, 1869.

"Lectures Introductory to a Course to Physicians upon the Surgical Diseases of Women." Lecture I. Journal of the Gynæcological Society of Boston, December 1869. Lecture II. Ibid., January, 1870.

1870. "Specialism and Especialism: Their Respective Relations to the Profession." Read before the American Medical Association, 1865, being a Minority Report of the Committee upon Specialism. Journal of the Gynæcological Society of Boston, January, 1870.

"The Gynæcological Society of Boston and Women Physicians." A Reply to Mr. William Lloyd Garrison. Journal of the Gynæcological Society of Boston. February, 1870.

"Reproduction by Fissuration, or Longitudinal Division, in the Human Species." Read before American Academy of Arts and

Sciences, September 14, 1869. Journal of the Gynæcological Society of Boston, March 1870.

"The Surgical Treatment of Hemorrhoids and Fistula in Ano, with their Result." Journal of the Gynæcological Society of Boston, April, 1870.

"Notes to Dr. Bixby's Translation of Prof. L. Mayer, on the Relations of the Female Sexual Organs to Mental Disease." Journal of the Gynæcological Society of Boston, May, 1870. Ibid., August, 1870. Ibid., April, 1871.

"Lacing the Breast: A New Operation for Removal of the Mamma." Journal of the Gynæcological Society of Boston. November, 1870.

"The Mutual Relations of the Medical Profession, Its Press, and the Community." Presidential Address at Annual Meeting of the Association of Editors of American Medical Journals. Delivered at San Francisco, May 1, 1871. Journal of Gynæcological Society of Boston, June, 1871.

"The Propriety of Operating for Malignant Ovarian Disease." Read before San Francisco Medical Society, July 25, 1871. Journal of Gynæcological Society of Boston. September, 1871.

"Female Hygiene." A lecture delivered in the Capitol at Sacramento, and repeated at San Francisco, by request of the State Board of Health of California. First Biennial Report of California State Board of Health, 1871. Journal of the Gynæcological Society of Boston, January, 1872.

"The Massachusetts State Medical Society and the American Medical Association." Pacific Medical and Surgical Journal. May, 1871.

1872. "The Differential Diagnosis of Anal Fistula in Women, more particularly with reference to Discovering the Inner Orifice where such exists." Journal of the Gynæcological Society of Boston, March, 1872.

"The Gynæcological Cabinet of Harvard University." Journal of the Gynæcological Society of Boston. May, 1872.

1873. "On Digital Eversion of the Rectum, in Diagnosis and Treatment." London Lancet. 1873.

1875. "Southern Italy as a Health Station for Invalids." Based upon a Report rendered to the American Medical Association, in 1874, as Chairman of a Special Committee to investigate the Health Resorts of Southern Europe. Naples, 1875, Pp. 70: Richard Margheri.

1877. "The Importance of the Uterine Ebb as a factor in Pelvic Sur-

gery." Presented to the American Gynæcological Society at its first Annual Meeting, New York, September, 13, 1876. Summarized in Transactions of the American Gynæcological Society, Vol. I., p. 22. Edinburgh Medical Journal, January, 1877.

"The Practically Absolute Safety of Profoundly Induced Anæsthesia in Childbirth, as compared with its Employment in General Surgery." Edinburgh Medical Journal, February, 1877.

"Upon the Arsenical Atmosphere and Arsenical Hot Spring of the Solfatara at Pozzuoli (near Naples), in the Treatment of Consumptives." London Lancet, September, 1877.

In addition to the above, Professor Storer has made many shorter communications, some of them, however, of considerable length, to medical societies, upon a great variety of Gynæcological topics, has reported a long series of the major pelvic operations, and has written home medical letters from Europe. (*Vide* Journal of the Gynæcological Society of Boston, 1869-72; Boston Medical and Surgical Journal, 1876, etc.)

STORMONT, DAVID WASSON, M. D., of Topeka, Kansas, was born at Princeton, Gibson Co., Indiana, September 26, 1820. His ancestors are of Scotch-Irish stock. The Doctor received his academic education at the University of Indiana, where he graduated in 1842. He attended his first course of lectures at the Ohio Medical College, his second at the University of Pennsylvania, where he graduated M. D., in 1845. In the same year he opened an office to practice in Grand View, Illinois, but in 1862 removed to Topeka, Kansas, where he continues to reside, and has a large general practice. Occasionally he has contributed articles to the medical journals, but is a worker rather than a writer. In 1865 he was appointed Receiver of Public Moneys in the United States Land Office at Topeka, which he held for two years. He is a member of the Kansas State Medical Society and its Secretary in 1866. He became a member of the American Medical Association, in 1858, and attended

the meeting in San Francisco, California, in 1871, and has served for years on the Judicial Council, and is an honorary member of the California State Medical Society. In 1848, he was united in marriage to Jane Cree Smith, of Grand View, Illinois. They have no children. The Doctor was accompanied by his wife to California, and after the Convention adjourned they visited the various places of note, and greatly enjoyed their trip to the Pacific.

STRONG, THOMAS DAVIS, M. D., of Westfield, New York, was born in Rutland Co., Vermont, November 22, 1822. He is a direct descendant of the celebrated "Elder John Strong," of Northampton, Mass., The genealogy of this remarkable family has been carefully kept, and preserved with pride by the descendants, who now number over thirty thousand, distributed throughout the United States. The Doctor prepared for college at Burr Seminary, in Manchester, Vermont, and graduated at the University of Vermont at Burlington, in 1848. Having devoted himself to the study of medicine, he attended his first course of lectures at Castleton Medical College, a second and a third at Buffalo, New York, where he graduated M. D., in 1851. He commenced practice at Westfield in May of the same year, where he soon became fully employed, and where he still resides, giving all his attention to the duties of his profession. Dr. Strong served as the Surgeon of the Sixty-eighth New York Regiment of State troops, and was one of the Commissioners for locating the Insane Asylum for Western New York. He is a member of the Chautauqua County Medical Society, and of the Lake Erie Medical

Society, and has been President of both; a permanent member of the New York State Medical Society, and an honorary member of the California State Medical Society. He is united in marriage to Lucy M. Ainsworth; they have no children. He expresses himself as greatly delighted with his trip to California, and takes a lively interest in the Rocky Mountain Medical Association.

SUTTON, GEORGE, M. D., of Aurora, Indiana, was born in London, England, June 16, 1812. In 1819 his parents, with their children, emigrated to the United States, remaining about one year in Cincinnati, Ohio, but in the spring of 1820, removed to a farm on the White Water, in Franklin County, Indiana.

The subject of this notice was a farmer's boy, and all that the term implies. At a suitable age he attended school in the old-fashioned log school-house once common in new settlements. His mother died in 1827, and in 1828 he was sent to the Miami University. His father, in 1832, returned and took up his abode in Cincinnati. Here, in 1833, George commenced his professional studies, with Dr. Jesse Smith, who unfortunately, a short time afterward, was stricken down with cholera and died. He then became a student of Prof. John Eberlies, and attended the private lectures of Professor S. D. Gross. The winter of 1835-36 was given to the acquiring of a knowledge of anatomy in the dissecting-room. In the spring of 1836 he received his diploma from the Ohio Medical College after he had attended the prescribed course of lectures. His thesis was on the "Relation between the Blood, and Vital Principle." In the spring of the same year he opened an office at Aurora, Indiana, where he has

continued to reside, fully employed with a large and responsible practice.

In 1838, he was united in marriage to Miss Sarah Follre, of Aurora. They have five children—four sons and one daughter. The latter and two sons are living; Mrs. Sutton died in 1868.

In 1843, an epidemic of erysipelas, commonly known as the "black tongue," prevailed in Aurora and the adjacent neighborhood. This disease was very fatal, causing much alarm among the people, and was carefully studied by the profession. In 1843, the Doctor published his observations on it, with cases, in the *Western Lancet*. "It attacked," he said, "the mucous membrane of the respiratory passages, the tongue, the glands of the throat, and the skin, in the form of erysipelas; the œsophagus and thoracic viscera, the uterus and its appendages, producing puerperal fever, as this last disease in several places has accompanied the epidemic." This paper speedily attracted attention, and was republished by Nunnerly, in his work on erysipelas, and extracts from it have been incorporated in Copland's Medical Dictionary, and referred to by other writers.

A second epidemic of cholera visited Indiana in 1849, causing many deaths, and greatly taxed the endurance of the profession. The Doctor lost a son, and had a grave attack himself, but recovered and continued his efficient service to the afflicted.

In 1844, Dr. Sutton was instrumental in organizing the Dearborn County Medical Society, which met at his house on the first Monday of June that year, and continued for some time. This society was re-organized in 1867.

He is a member of the Indiana State Medical Society, and as Chairman of a Committee made a report "On the Medical History of Cholera in Indiana." In his study of the subject he was very systematic and thorough, obtaining by means of circulars the facts and observations of a great number of physicians on the disease from every part of the State. This report was laid before the meeting of the society in 1853. It contains all the facts that could be collected, and is a most valuable contribution to the literature of cholera. In this report the Doctor clearly enunciated the view of the danger of infection from the evacuations and its transportation and spread by them in and along the lines of travel.

In 1856, he presented a report on erysipelas to the State Medical Society. The same year he made a careful study of hog-cholera, a disease at that time becoming prevalent, causing death to a large number of swine in Indiana. He was about the first to study the disease in a systematic and careful way. His researches were published in the *Cincinnati Gazette*, February, 14, 1857. A more extended series of experiences and observations on the subject was published in the *North American Medico-Chirurgical Review* for 1858. He was at this time a frequent contributor and always welcomed to the pages of medical journals. In 1860, Dr. Sutton delivered a course of lectures on geology, but more particularly on the local geology of the neighborhood, in behalf of the Mount Vernon Ladies' Association, of which he was one of the Advisory Committee for Indiana. (See Mount Vernon *Record* for May, 1859.)

A few days after the battle of Pittsburgh Landing he tendered his services to the United States Sanitary Commissioners and visited the field of battle. The Doctor was assigned a surgical ward on one of the hospital-boats used for conveying the wounded to permanent hospitals for treatment. In 1867 he made a report to the State Medical Society, on the cholera as it appeared in Dearborn, Ohio, and Ripley Counties, in Indiana, in 1866. In 1869, he was elected President of this body, and presided at the meeting in 1870. On this occasion he delivered an address on "Man's Power over Nature, and Medicine as a means by which he aids and controls the Laws of Life." It is published in the Transactions, and also in pamphlet form.

Dr. Sutton was elected Mayor of Aurora in 1862, and was re-elected three times, almost without a dissenting vote; but as the duties of this office interfered somewhat with his professional business, he declined a fourth term. In 1866, when the cholera was threatening to become epidemic, the Doctor, as President of the Board of Health of Aurora, took the most active hygienic measures for the protection of the citizens; wherever a case was found disinfectants were freely used in and about the premises, thereby limiting its spread in his own city. He served the American Medical Association for two years as Chairman of the Committee on Meteorology and Epidemics. In 1873, after a correspondence with physicians, he collected information from forty-two counties in the State of Indiana, upon the disease mentioned, and compiled a most valuable report for the Indiana State Medical Soci-

ety. He possesses an active, well-trained mind, is a close observer, and has an extensive acquaintance with the literature of his profession, so that he knows what is valuable, new, and worth publishing. All of his papers have the rare merit of being original and practical. He has reported a number of cases of the reduction of the hip-joint by manipulation of the femur over a fulcrum placed in the groin, in one of his cases the limb had remained twenty-eight days out of place.

Dr. Sutton is never idle, and has a wonderful amount of information on almost every conceivable subject. The antiquities of the West early attracted his attention, and led him to make collections and take notes and make drawings of many of the relic mounds and fortifications that have since disappeared in the progress and improvement of the country. His collection of antiquities, fossils, and geological specimens found in the neighborhood of Aurora forms a cabinet of many thousands.

He is a member of the Dearborn County Medical Society, of the Indiana State Medical Society, and has been President of each; the Archæological Association of Indiana; of the American Medical Association (since 1856); of the Cincinnati Society of Natural History; of the American Association for the advancement of Science; and an honorary member of the California and Ohio State Medical Societies. He was also a member of the International Medical Congress of 1876.

The Doctor has written considerable for the public press on the subject of schools and other matters of public interest, and has kept a meteorological journal for over twenty-five years, and furnished observations

to the Smithsonian Institution from 1859 to 1873. The following is a chronological list of his chief publications:

1840. "Enlarged Prostate Gland, thickened and sacculated Bladder." *American Journal of the Medical Sciences*, vol. 26.

1843. "Epidemic Erysipelas, known by the popular name of Black Tongue." *Western Lancet*, vol. 2.

1849. "A Summary of Symptoms and Treatment of Asiatic Cholera." Pamphlet. Aurora.

1852. "A Fourth of July Oration, on the Danger of the Dissolution of the Union."

1853. "Report on Asiatic Cholera to the Indiana State Medical Society, during the years 1849, 1850, 1851, and 1852.

1856. "Report on Erysipelas to Indiana State Medical Society."

1857. "Investigation of the Disease prevailing amongst Hogs. Hog Cholera." *Cincinnati Gazette*, January 14, 1857.

"Observations on the Diversity of Symptoms in Scarlatina Maligna." *North American Medical and Chirurgical Review*.

1858. "Observations on the Supposed Relations of Epizootics and Epidemics; with Experiments." *Ibid*.

1866. "A Summary of Observations on Cholera." *Medical and Surgical Reporter*.

1867. "Report on Cholera, showing the extent of the Epidemic in Dearborn, Ripley and Ohio Counties, Indiana, 1866." *Transactions of the Indiana State Medical Society*.

1868. "Report on Cholera." *Ibid*. "Restoration of Dislocation of the Hip-joint by making the Femur a lever acting upon a fulcrum placed in the groin." *Western Journal of Medicine*.

1870. Address as President of the Indiana State Medical Society, on "Man's Power over Nature." *Transactions Indiana State Medical Society*.

1873. "Observations on a local Thunder-storm." *American Journal of Science and Art*.

1874. "Investigations of the Prevalence of Trichina in Hogs in Dearborn County, Indiana." *Aurora Farmer and Mechanic*, re-published in the *Cincinnati Commercial and Gazette*.

1875. "The Fulcrum as an aid to Manipulation in the Reduction of Dislocation of the Hip-joint." *Medical and Surgical Reporter*.

"Biographical Sketches of Isaac Cesselberry, Thomas Fry, and James F. Debruler." Transactions of the American Medical Association.

"Report on Trichinosis to the Indiana State Medical Society." Transactions Indiana State Medical Society.

1876. "The Fulcrum as an aid to Manipulate in the reduction of Dislocations of the Hip-joint." American Practitioner.

"On the Reduction of Dislocations of the Hip-joint by Manipulating the Femur as a lever over a fulcrum." Transactions Indiana State Medical Society.

"Evidences in Boone County, Kentucky, of Glacial or Ice Deposits of two distinct and widely distant periods." Association for the Advancement of Science.

"The Fulcrum as an aid to Manipulate the Reduction of Dislocations of the Hip-joint. American Practitioner.

SUTTON, RHODES STANSBURY, M. D., of Pittsburgh, was born July 8, 1841, at Indiana, Pa. His father was a prominent business man, of English ancestry. His mother—a woman of fine intellectual culture—was descended from Scottish parentage. At the age of fifteen he was placed in Tuscarora Academy. After leaving this, he entered the Sophomore Class of Jefferson College, at Canonsburgh, and graduated at the commencement, in July, 1862, receiving the degree of A. B. During his Senior year in College, he studied anatomy and chemistry under Dr. I. V. Herriott, now of Vandalia, Ill. In October, 1862, he placed himself under the tutorship of Professor Agnew, and graduated from the University of Pennsylvania in the spring of 1865, receiving the degree of M. D. His first course of lectures was received at the Jefferson College, during the winter of 1862-63. The next twelve months were spent in the Medical Department of the Federal Army. During the summer of 1864 and winter of 1864-65, he attended the lectures at the

university. After graduating, he was chosen one of the Resident Physicians of Blockley Hospital, West Philadelphia, which position he filled for seven months, when he resigned, and began the teaching of anatomy to medical students, in the old rooms on Chant street, known as the Philadelphia School of Anatomy. Ill health compelled him, after two years of incessant labor, (attended, however, with excellent encouragement,) to quit the dissecting rooms. He therefore sought a new field of labor, and in November, 1866, began the practice of his profession in Pittsburgh, where he still resides. Although still young, he has performed many important surgical operations, among which are five cases of ovariectomy. He has also removed a subperitoneal fibroid tumor of the uterus through the posterior wall of the vagina. He is a contributor to the *Medical and Surgical Reporter* of Philadelphia and the *Chicago Medical and Surgical Examiner*. Washington and Jefferson College conferred upon him the degree of A. M. in 1866. He is a member of the Allegheny County Medical Society; of the Pennsylvania State Medical Society; of the American Medical Association; of the American Academy of Medicine, and an honorary member of the California State Medical Society. He is married, and has two children—Stansbury and Eliza. His wife was the youngest daughter of James McCullough, of Canonsburg, Pa.

SWETT, JOHN LANGDON, M. D., of Newport, N. H., was born in the adjoining town of Claremont, February 17, 1810. His parents were descendants of immigrants from the Isle of Wight, who came to

this country and settled in Dedham, Mass., in 1637. For more than two centuries the various branches of this family have occupied reputable positions in society, in letters, in the professions, and under the Government. The subject of this sketch was employed in the duties of the farm until eighteen years of age, attending the public schools during the winters. In 1828 and 1829, he was a student at Wilbraham Academy, Mass., and, in 1830, at Meriden Academy, N. H. The two following years were spent in teaching, and in further perfecting himself in his classical studies. In the spring of 1833, he commenced the study of medicine under the supervision of Drs. Tolles and Kittredge, practitioners in his native town. He attended two courses of lectures at Dartmouth Medical College and one at Jefferson College, Philadelphia, where he received the degree of M. D. in March, 1836. In July of the same year, he opened an office in Newport, N. H., where a generous confidence and liberal patronage being accorded to him, he has prosecuted his labors more than two full scores of years. In 1841 he became a member of the New Hampshire Medical Society, in which, as elsewhere, he has endeavored to promote the greatest good and highest interest of the profession. He has been honored with various positions in this association, including that of its Presidency in 1874, on which occasion he delivered an address upon the duties of the profession in respect to alcoholic stimulants. In 1864 he served as a Delegate from the New Hampshire Medical Society to the National Medical Association, which met in New York. Dr. Swett has

been twice married. In May, 1842, to Sarah Elizabeth Kimball, of Bradford, N. H. She died in June, 1852, having been the mother of four children, two only surviving her—a daughter, aged eight years, and a son of three months. The son, William Kimball Swett, studied medicine in San Francisco, with Dr. J. T. Whitney, and settled in Kernville, Cal., where he died July 15, 1876, aged twenty-four years. The daughter, Mrs. C. C. Shattuck, resides in San Francisco. His second marriage was in June, 1853, with Miss R. Beaman, of Princeton, Mass., who accompanied him on his trip to California. They extended their visit to various places of note in different parts of the State, and, *en route*, took in Salt Lake City. The Doctor was much delighted with this journey, and particularly with the culture and hospitality of the profession in California.

THOMAS, CHARLES HERMON, M. D., of Philadelphia, Pa., was born at Milton, Saratoga Co., N. Y., December 4, 1839. His great-grandfather settled a homestead in New York State anterior to the revolution, where several generations of the family have been reared, and where the subject of this sketch passed his youth. He was educated at the public school, and at Prof. James Gilmorn's Academy, at Ballston Spa. He also spent some time under instruction in the laboratory of Prof. E. L. Youmans. Having made considerable progress in the study of medicine as a private student of Dr. Francis Gurney Smith, he entered the University of Pennsylvania, and graduating in 1865. In 1866 he opened an office in

Philadelphia, where he engaged in general practice, but with a decided preference to mechanical medicine—that is, surgery, obstetrics, ophthalmology, etc. He has contributed some papers to the Transactions of the Medical Society with which he is associated. During the last campaign of the Army of the Potomac, before the surrender of the Southern Army, he served as an Acting Assistant Surgeon. He was resident Surgeon of Wills Eye Hospital for one year; lecturer on Diseases of Women in the Philadelphia Lying-in Charity for five years; Professor of Materia Medica, and Therapeutics, and Surgery, and Ophthalmologist to the Woman's Hospital Medical College eight years. He is a Fellow of the College of Physicians, a member of the Pathological Society, of the Obstetrical Society, being one of its councilors, and of the Academy of Natural Science. The Doctor is married and has one son. His visit to California was one of pleasure, and which he refers to with satisfaction.

THOMAS, WILLIAM, M. D., of Bellefontaine, Ohio, was born in Washington, Pa., December 1, 1804, and died at Bellefontaine, April 2, 1875. Up to his seventeenth year he attended the district schools, and then entered the Washington College, where he acquired a fair knowledge of the languages and the higher mathematics, but did not complete a full collegiate course. His medical studies were pursued in the office of Dr. Stevens. He was probably a graduate in medicine; but where he attended lectures I am not informed. He began the practice of his profession in

a village in his native county, where he remained from four to six years. About 1834 he removed to St. Louis, Mo., where he practiced for about a year. He then removed to Logan county, Ohio, and opened an office in Logansville, where he practiced with success for fifteen years. In 1850 he removed to the town of Bellefontaine, but in a great measure retired from the more laborious and active duties of the profession. He was an earnest supporter of medical organizations, and kept himself well informed in matters pertaining to the profession, and was a man of energy and exact business habits. He was united in marriage in 1834 to Frances Miller, of Washington, Pa. She survived her husband six months. They left no children. The Doctor was a member of the Logan County Medical Society, and also of the Ohio State Medical Society. The latter he represented in the American Medical Association at its meeting in San Francisco, Cal., in 1871. He was also an honorary member of the California State Medical Society. His wife accompanied him on his trip to the Pacific coast.

THOMPSON, GEORGE H., M. D., of Boston, Mass.

THRALL, SENECA BROWN, M. D., of Ottumwa, Iowa, was born in Utica, Licking Co., Ohio, August 9, 1832. His father, the late Professor H. L. Thrall, of Kenyon College, was well known throughout the West for his general scientific attainments, as well as for his skill as a physician, having filled the chairs of Chemistry and Geology in that institution,

from 1840 to 1852; the chair of Materia Medica and General Pathology in the Starling Medical College, Columbus, in 1855-56, the honorary degree of M. D. having been conferred on him by the Medical Department of the University of New York in 1844. The subject of this sketch passed through all the departments of Kenyon College, graduating A. B. in 1851 and A. M. in 1855. He had commenced the study of medicine with his father, in 1849; attended a course of lectures at Starling Medical College, 1851-52, and then at the University of New York, where he graduated M. D. in 1853. He had begun to practice the year previous with his father in Columbus, Ohio, where he returned after obtaining his degree. In April, 1854, he removed to Belle Centre, in Logan County, where he resided till November, 1855, when he returned to Columbus. In May, 1856, he removed to Ottumwa, Iowa, where he is in the enjoyment of a large and responsible practice. The city had at that time a population of but nine hundred, and there were fifteen nominal physicians, who were candidates for its practice. Now the population is ten thousand, and there are thirty physicians of all sorts. The Doctor is a member of the Wapello County Medical Society, and was President of it in 1871; of the Iowa State Medical Society since 1856, its Secretary in 1864, its President in 1869, and President *pro tempore* in 1870. He was again elected Secretary in 1873, and annually re-elected till 1877. He was a Delegate of the American Medical Association, at the meeting in San Francisco, in 1871, and is an honorary member of the California State Medical Society. On his visit to the

Pacific coast, he made short excursions to places of note, and stopped at Salt Lake City *en route*. He is also a member of the Des Moines Valley Association; of the American Medical Association, and for fifteen years has been a member of the City School Board. The Doctor has contributed a few papers to medical literature and delivered some admirable addresses to the State and county medical societies, which are contained in their Transactions. He also wrote a report of the epidemic in Wapello County, Iowa, in 1876. In February, 1862, he was appointed a Surgeon in the Military Hospital at Keokuk. In November of that year he was commissioned Assistant Surgeon of the Thirteenth Iowa Volunteer Infantry, and served with it in the Seventeenth Army Corps until May, 1864, when he returned home and resumed private practice. In May, 1856, he was united in marriage to Mary Brooks, of Columbus, Ohio. They have three children—Frank B., Nellie and Homer N.

TONER, JOSEPH MEREDITH, M. D., of Washington, D. C., was born in Pittsburgh, Pa., April 30, 1825. He is the elder of two sons, the only surviving children of Meredith and Ann (Layton) Toner. Both his parents were natives of the State of Pennsylvania. His father grew up in Lancaster County, and was raised to agriculture. His mother, Ann, daughter of James Layton, was born in Fayette county, near the present site of Layton Station, on the Connellsville Railroad.

The subject of this sketch received his early education at the common schools of the city of Pittsburgh,

and of Westmoreland county, his childhood being passed partly in each of these localities. Subsequently he attended the Western Pennsylvania University for a year, and was then sent to Mount St. Mary's College, where he continued his studies for two years longer, but left without having completed a classical course. After this he engaged in mercantile pursuits for a short time, but as his mind developed he was gradually led to a recognition of a preference for the medical profession.

In the autumn of 1847 he began the study of medicine with Dr. John Lowman, the leading physician of Johnstown, Pa. The office of his preceptor offered exceptionally good opportunities for a certain class of clinical instruction. It was usual in those days for the senior student to compound his preceptor's prescriptions to assist in surgical operations, and occasionally to visit with him the sick-room.

Dr. Toner attended his first course of lectures at the Jefferson Medical College in Philadelphia in the winter of 1849-50. At the close of this term, he entered (March 1, 1850,) the Vermont Medical College at Woodstock, and received the degree of Doctor of Medicine from this institution in June, 1850. In July of this year he began to practice at Summitville, a village of about three hundred and fifty or four hundred inhabitants, situated at the summit of the Alleghany mountains, on the Portage Railroad, in Cambria county, Pa.

The physician who had practiced in this place for many years (Dr. Christy) had died in the previous month. A circuit of about ten miles was thus left

without a medical man, which Dr. Toner was solicited and advised to occupy. The building of the Pennsylvania Central Railroad through the Alleghany mountains began about this time, giving an impetus to business and causing a temporary increase of population of the village and its vicinity. The Doctor soon found his time fully occupied in general practice.

As might be expected on heavy railroad work, such as that on this mountain, many accidents occurred, requiring prompt surgical interference, much of which fell to his care. This led him for the time to give a preference to surgery, and induced him to spend another winter in Philadelphia, to further perfect himself in that branch. After attending this, a third course of lectures, he received the degree of M. D., from Jefferson Medical College, in the spring of 1853. In the fall of the same year he removed to the city of Pittsburgh, and was in practice there during the cholera epidemic of 1854.

Although his prospect of acquiring a fair practice was encouraging, he determined to go South, and after spending a few months with his mother on the homestead farm in Westmoreland county, at the earnest invitation of a college friend, the Hon. William Walsh, now of Cumberland, Md., he removed in 1855 to Harper's Ferry, Va. At this place in a short time he was busily engaged in practice. While located there during the autumn of this year, the yellow fever prevailed at Norfolk, Va., and Dr. Toner tendered his services to that afflicted city, but sufficient medical aid had previously been secured. But a residence of six months at Harper's Ferry convinced

him that the place was too small for any considerable professional advancement. He accordingly took up his present residence in Washington on the 7th of November, 1855.

An earnest student himself, Dr. Toner early became sensible of the embarrassment to the acquisition of knowledge, caused by a want of books. He therefore began the collection of a medical library, which has grown to be one of the largest and most valuable private collections in the country, and certainly south of Philadelphia. He has succeeded in bringing together much of the literature on cholera, yellow fever, and the other epidemics which have visited our country. The local histories of cities, towns, counties, and of the states, as they contain much medical biography, accounts of local epidemics and topographical information, are for this reason included in his library. His collection of American medical journals is the most complete in the country, if we except that of the library of the Surgeon-General, and that of Dr. Purple, of New York.

He conceived the idea of forming a subject index of the contents of all the American medical journals, and has completed the task up to 1870, covering sixty-five complete files, thus greatly increasing their value for reference. This index includes everything of importance contained in them, whether original or selected matter, and thus differs from a somewhat similar work which is being carried on by Dr. Billings of the Surgeon-General's Office. Dr. Toner's work is an index, properly so-called, which will be of special value to all possessors of files of the leading

American medical periodicals, while the work of Dr. Billings is rather a catalogue of all original papers alone in medical journals of all languages.

Dr. Toner has been an active collector of the contributions of American medical authors, particularly those of early date. He has also paid attention to the collection of reports and Transactions of State and local medical societies, the publications of various boards of health, and other matters pertaining in any wise to medical and sanitary science. His library has always been at the service of the profession of Washington. In 1865, on the appearance of cholera in the United States, the Doctor published a list of the works in his collection treating upon this disease, and tendering their use to the profession. He had numerous applications from a distance; the books were sent by mail or by express as requested. They were all returned without loss or injury. It may be added that the Doctor has shown not only judgment in collecting, but also ability in using his books, as is shown by his several publications.

When engaged on special studies, Dr. Toner may be found at his desk at almost any hour of the day or night, with literally stacks of books around him. He has almost daily applications for information by medical gentlemen residing in different parts of the country, who are engaged in special studies. The very general recognition of his ability and readiness to help others has imposed upon him much labor and a very large correspondence.

The Doctor is fond of statistics, and has skill to analyze what would be to many persons incongruous

data, and to classify and bring together related facts and reduce them into comprehensive tables or diagrams. His extensive range of reading and familiarity with medical literature and the wants of the profession are constantly leading him into new lines of inquiry, which he pursues with earnestness and success.

Shortly after coming to Washington, Dr. Toner became connected with the Medical Society, and also with the Medical Association of the District of Columbia, and has been an active co-laborer in them, and has been honored by them with their highest offices. On retiring from the Presidency of the Medical Society, in 1870, in accordance with the usage of that body, he read an address in which he discussed the vital statistics of the United States from the foundation of the government to 1870. A synopsis of the part of this paper which related to population was published with plates and diagrams by the Bureau of Education, in 1872.

The Medical Society of the District of Columbia was chartered by Congress in 1817, but anterior to 1862 it exhibited but little enterprise, rarely meeting oftener than once or twice a year, to elect officers and and to preserve its chartered existence. About this time a few active spirits, among whom was the subject of this sketch, conceived the idea of arousing it into a recognition of the fact that it was a literary as well as a licensing body. The attempt was successful; the society awoke to active exertions, and has continued to hold weekly meetings, where pathological specimens are exhibited and described, and papers on medical subjects are read and discussed.

Since 1864 the Doctor has been a member of and a constant attendant at the meetings of the American Medical Association. He has served on various important committees, read papers at its meetings, and has interested himself in the current proceedings and deliberations of the body. He was elected President in 1873, and in the following June, at Detroit, he delivered a well-considered and suggestive address, which elicited commendatory notices from the medical press of the country. Few professional men are more thoroughly familiar with the interests and objects of the association and are more zealous to promote its efficiency for good than Dr. Toner.

Aware of the perishable character of much of our early original medical literature which has been issued only in pamphlets and journals, and feeling the necessity of an extensive and convenient national medical repository which should be under the management of and available to the profession at large, he devised the scheme for a repository of medical works that should be under the control of the profession of the United States, and be located at the national capital. As initiative of the project, he in 1868 prepared a resolution to consider the matter, which was adopted by the Association. A committee was appointed to report at the next meeting "on the practicability of the establishment of a library of American medical works, including books, monographs, periodicals," etc., by the American Medical Association. The Doctor was made chairman of the committee, and in 1869, his report was read at New Orleans, in which he strongly recommended the measure. The report also set forth the

means by which such a collection might be formed and augmented. It was accepted by the Association, and the formation of a "national medical library" was commenced. This collection of works is now deposited in a room at the Smithsonian Institution, and has reached the number of about two thousand volumes, including pamphlets. Since that time, the "Library of the Surgeon-General," as it is usually termed, has been created. This collection is properly a branch of the Library of Congress, though at present under the care of the Surgeon-General of the army. Through the energy and ability of Surgeon J. S. Billings, it has been brought to extraordinary completeness, and being opened to the profession of the country has, to some extent, superseded the necessity of immediate or special exertions in founding the medical repository of the American Medical Association, the one to some degree appearing to duplicate the purposes of the other. But a perusal of the report referred to and the accompanying documents will not fail to impress the idea that the formation of a great American library is here foreshadowed, and that the National Medical Library, under the care of the Surgeon-General, and the pride of the profession of the United States, has resulted from the action of the American Medical Association.

As evidencing the consideration the subject of this sketch has given to the efficient working of the American Medical Association, we will allude to his action in 1865, in proposing an amendment to the plan of organization, which secured an increased annual assessment on each member. This furnishes a fund that enables the society to pay all its current

expenses, including rent of a meeting hall and the publication of its Transactions. Harassing appeals for additional contributions and dependence upon eleemosynary aid from members and from the profession at the localities visited, were thus dispensed with, thereby elevating the society at once to the plane of an independent and self-sustaining body, and making it a welcome visitor to every city. His counsel for good in the affairs of the association is not confined to this measure alone, but may be seen in nearly every volume of the society's Transactions, and his judgment is appreciated by all the leading members and friends of progressive medicine throughout the United States.

Prompted by a desire to encourage students to aspire to a higher and more scientific education in the profession, and being impressed with the idea that much remained to be effected for the encouragement of special and original studies, perhaps through other means than those in vogue, Dr. Toner founded in 1872, by endowment, the "Toner Lectures." "Believing," writes the founder, "that the advancement of science (that is, a knowledge of the laws of nature, in any part of her domain), and specially such discoveries as contribute to the advancement of medicine, tend to ameliorate the condition of mankind," he therefore set aside a fund, the interest of which was mainly to be used in maintaining the "Toner Lectures," to be delivered annually in Washington, to consist of a series of discoveries, memoirs or lectures, which "should contain some new truth or discovery, based on original investigation," which were, if approved, to

be published. This fund has been placed under the control of five trustees. Six lectures have already been delivered. They have all been accepted for publication "as additions to knowledge," and printed by the Smithsonian Institution. This is the first attempt to endow a course of lectures based on the conditions of adding new facts for the advancement of medicine, and it is heartily to be desired, that it will continue to occupy the advance ground of medical progress and encourage original research.

With the same philanthropic desire to induce students to work on original lines of investigation and by experiment, and to make discoveries, to promote laudable emulation among them, he has furnished for three years a gold medal which was competed for by the students of Jefferson Medical College. This medal to be awarded for the best thesis embodying the results of original investigation, experiment, or research in some branch of medical science. On the occasion of the presentation of the first one in March, 1875, the Doctor made a few pertinent remarks, very tersely setting forth his views in regard to the value of experiment and research, and their necessity for scientific advancement, and his belief that the most brilliant successes in this direction are to be achieved by the young men of the profession. These remarks are published at length in the *Philadelphia Medical and Surgical Reporter* of that date.

He has also for some years past, placed at the disposal of the Faculty of the University of Georgetown, D. C., a medal, to be awarded at the annual commencement, to the student showing the greatest proficiency in the natural and physical sciences.

When the increasing density of population in our cities began seriously to threaten the stability of the public health and sanitary science and their influence in preventing diseases began to be discussed, Dr. Toner's attention was at once drawn to the study of preventive medicine. He soon gave several essays and monographs to the public, including papers on malarious, endemic, or septicemic poisons. Beginning in 1865 with the consideration of compulsory vaccination, he followed with papers on cholera, quarantine, yellow fever, and other contagious diseases. Later he published his "Dictionary of Elevations and Climatic Register," a convenient repository of facts of value to writers in studying the geographical distribution of disease, giving the elevation of many thousands of localities and their mean annual temperature, and of rain-fall, so that all observers might see their influence, if any, on health and mortality.

The American Public Health Association grew out of the necessity for a union of experienced sanitarians to enforce hygiene in large cities, and to indicate the proper and most effectual mode of bringing sanitary appliances and laws into operation. The election of Dr. Toner, in 1874, as President of that body, was a tribute paid to him as one of the oldest and earliest workers in that field.

His paper, the "Statistics of Boards of Health of the United States," published in 1874, and his address as retiring President of the Association in 1875, upon the "Leading Public Health Questions, etc.," are valuable contributions to the literature of preventive medicine, and show how carefully and extensively he col-

lects his facts, and how widely and aptly he applies the principles of the science of hygiene.

The Doctor has perhaps been the most successful biographer, thus far, of the medical profession of the United States. There is no error in asserting that no physician in the country has made himself equally conversant with the early American medical literature, and the progress of medicine in our country since its first settlement, or has been so assiduous in the collection and preservation of reminiscences of the lives of our departed and illustrious Nestors. Brochures on medical history and biography have from time to time been published by him, and all have been well received by the profession and the public. Prominent among them are "Necrology of the Physicians of the late War," "Annals of Medical Progress in the United States," "Medical Men of the Revolution," and his "Address on Biography" before the Centennial International Medical Congress in 1876, besides many other necrological monographs, which are but the outcroppings of a more important work in course of preparation, namely, "A Biographical Dictionary of Deceased American Physicians," for which over four thousand sketches are ready for the press.

As an author he has been fortunate in his themes, choosing subjects which will have a lasting interest to the profession. He is noted for his love of definite facts and the extreme care he takes to verify references; and while writing on any subject has piles of books about him far beyond the capacity of his desk and book-racks, often loading the chairs and littering the floor of his office. Dr. Toner has received from

his friends the appellation of "the Fact Hunter," which tersely expresses a prominent mental characteristic. His taste for statistics and capacity for originality of method in demonstration are shown in various studies, and particularly in his diagrams to represent the preponderance of sex in the population and the decline of the birth-rate by decades in the United States; in the map showing the localities visited by yellow fever; and in the conception of a plan for a systematic geographical classification of the States, and the adaptation of a set of symbols to be used after the name of a locality which shall indicate its geographical position. The principle is applicable to a nation, a State, a county, or other political division, thus greatly simplifying the finding of a place on a map by giving a mental indication of a locality by an affix of a symbol to the name. This method has been adopted by the Post Office Department and incorporated in their Directory to designate the localities of the counties in each State in the Union.

He is an authority in nearly all matters relating to the history of medicine, medical biography, and the local history of the District of Columbia.

His address in 1866, before the Medical Society of the District of Columbia, contains a very full and accurate history of medical matters in that locality from the time it was chosen as the seat of the General Government. Some time ago he furnished, from his collection of maps and rare records, data which enabled the compilation of the map which accompanies the work entitled, "Washington in Embryo," which shows the plots and boundary lines of the farms as they existed when the city of Washington was laid out.

The Doctor has always identified himself actively with the public charities of the city. After the burning of the Washington Infirmary in 1861, it was at his instance that the Sisters of Charity founded what is now known as Providence Hospital. The "Nicholson House" was temporarily fitted up by them and opened as a hospital, which he attended for some years. He was also one of the originators of St. Ann's Infant Asylum, which was first opened in a building on Pennsylvania Avenue, formerly "Maher's Hotel." In 1860 he succeeded Dr. John Dyer as medical attendant to St. Vincent's Female Orphan Asylum, where he served for many years. From the foundation of St. Joseph's Male Orphan Asylum in 1856, he has been and still is the attending physician. He is also physician to other educational and benevolent institutions in Washington. He has on several occasions been solicited to accept professorships in different medical colleges, but has always declined, preferring to enjoy the quiet current of professional life and duty.

Some time ago, the Doctor tendered his valuable library to the profession of Pittsburgh, upon the condition that they provide for it a fire-proof building which should bear his name. Although appreciating the offer, the medical men were unable to raise the means required. But the Western Pennsylvania University, located in Allegheny City, offered to comply with all the conditions. The Doctor, however, prefers the library to be under the sole charge of the medical profession. He next tendered it to the profession of St. Louis, which has also failed to comply with the terms, and it is now under a similar proffer to the city of Chicago.

Dr. Toner has not married, but lives in his own house, in a comfortable, unostentatious manner, surrounded by his books, where he dispenses a quiet hospitality to his friends. The Austrian Universal Exposition, held in Vienna, awarded the Doctor a Medal of Merit with a Diploma, for contributions relating to medical matters in the United States.

He has at different times visited the more noted places in the United States and Canada for pleasure and relaxation, or in the pursuit of a more practical knowledge of the physical geography and climatic peculiarities of North America. In 1871 his trip to the Pacific gave him a coveted opportunity to realize something of the vastness of the continent and to observe the influence of altitude and climate on vegetation and animal life along the line of the great trans-continental highway. After the adjournment of the American Medical Association he made hurried visits to a few of the more celebrated resorts and wonders in California, and stopped one day at Salt Lake City *en route* home.

Dr. Toner is still in the enjoyment of good health, and wields a vigorous pen, and we may confidently hope for new and valuable contributions from him. Sketches of his life have appeared in Allibone's Dictionary of Authors, Johnson's New Encyclopædia, the Northwestern Medical and Surgical Journal, etc.

Dr. Toner is a member of the Medical Society of the District of Columbia, of the Medical Association of the District of Columbia, of the American Medical Association, since 1864; of the American Public Health Association; of the Philosophical Society of

Washington, and of the Alumni Association of Jefferson Medical College; an honorary member of the California State Medical Society, of the New York State Medical Society, of the Wisconsin Historical Society, and of the Detroit Academy of Medicine; a corresponding member of the Gynæcological Society of Boston, of the Virginia Historical Society, of the Albany Institute, of the College of Physicians and Surgeons of Little Rock; a visitor to the Government Hospital for the Insane, and Patron of the Toner Scientific Circle of Georgetown College.

The following is a list of Dr. Toner's chief publications, and which may be found in the Catalogue of the Surgeon-General's Library:

"Abortion in a Medical and Moral Aspect." Medical and Surgical Reporter, January, 1861.

"Arrest of Development of the Cranial Bones, followed by Epilepsy." Medical and Surgical Reporter, April, 1861.

"Maternal Instinct or Love." 12mo. Baltimore, 1864.

"Propriety and Necessity of Compulsory Vaccination." Transactions of the American Medical Association, and in pamphlet form, 1865.

"History of Inoculation in Pennsylvania." Transactions of the Pennsylvania State Medical Society, and in pamphlet form, 1865.

"Anniversary Oration before Medical Society, District of Columbia," 1866. 8vo, pamphlet in 1869.

"Portability of Cholera and Necessity of Quarantine," 1866. Joint Paper with Chas. A. Lee, M. D. In New York Medical Record.

"History of Inoculation in Massachusetts." Transactions Massachusetts Medical Society, 1867.

"Medical Register of the District of Columbia." 12mo. Washington, D. C., 1867.

"Address at the Dedication of Medical Hall, Washington." In the Baltimore Medical Bulletin, February 15, 1869.

"Statistics of Representation in the American Medical Association."

Journal of the Gynæcological Society of Boston, November and January numbers, 1870 and 1871.

"Necrology of the Physicians who served in the Late War." National Medical Journal, Washington, D. C., 1870.

"Medical Register of the United States, prepared in 1871," which he sold to and was published by S. W. Butler, of Philadelphia, in 1874.

"A Sketch of the Life of Chas. A. Lee, M. D." New York Medical Journal, April, 1872.

"Statistics of Boards of Health in the United States." Transactions American Public Health Association, 1873.

"Free Parks and Camping Grounds as Sanitariums for the Sick Children of the Poor of Cities." North Western Medical and Surgical Journal, November, 1872. Rewritten and published in The Sanitarian for May, 1873. Both published in pamphlet form.

"Facts of Vital Statistics in United States, with Diagrams." Circular of the Bureau of Education, March, 1872, and in Pamphlet form.

"Statistical Sketch of the Medical Profession in the United States." Indiana Medical Journal, May, 1873.

"Statistics of Medical Associations and Hospitals of the United States." Transactions of the American Medical Association, 1873.

"Address as President before the American Medical Association." Transactions American Medical Association, 1874, and in pamphlet form.

"Dictionary of Elevations and Climatic Register of the United States." Van Nostrand, New York, 1874.

"Annals of Medical Progress and Medical Education in the United States." Circular of Bureau of Education, 1874.

"Contributions to the Study of Yellow Fever, Its Distribution in the United States, with Maps." Transactions of American Public Health Association, and in pamphlet, etc., 1874.

"Annual Oration before the Medical and Chirurgical Faculty of Maryland." Transactions Medical and Chirurgical Faculty of Maryland, 1875, and in pamphlet.

"Address on Public Health Questions," as president of the American Public Health Association. Transactions of American Public Health Association, 1875, and in pamphlet.

"Biographical Sketch of John D. Jackson, M. D." Richmond and Louisville Journal, and in pamphlet, 1876.

"Medical Men of the Revolution." An address before the

Alumni Association of Jefferson Medical College. 8vo., Philadelphia, 1876.

"Sketch of the Life of Dr. T. M. Logan." Transactions of California State Medical Society, 1876.

"Biography of Dr. John Morgan, of Philadelphia." 1876.

"Address on Biography" before the Centennial International Medical Congress. Transactions International Medical Congress, and in pamphlet, 1877.

"Water Supply of Cities," before the American Health Association. The Sanitarian for June, 1877.

"Notes on the Burning of Theatres, Public Halls, etc." Pamphlet, pp. 22. 1876.

Address before the Rocky Mountain Medical Association. In Memorial Volume of Transactions, 1878, and in pamphlet.

Sketch of the life of Prof. Lunsford Pitts Vandell, (Nashville Journal of Medicine and Surgery, Feb., 1878.)

Also numerous short articles in medical journals, and the public papers, etc., such as "Visit to Mammoth Cave," "Blue Grass Regions of Kentucky," "St. Lawrence River," etc. etc. In course of preparation, "Biographical Dictionary of Deceased American Physicians."

T. ANTISELL, M. D.

TOWNSEND, RICHARD H., M. D., of Philadelphia, Pa., was born at Court House, Cape May Co., N. J., February 10, 1817. His ancestors were among the first settlers of that county, over two hundred years ago. The Doctor received his academical education at the Academy of Plainfield, Conn., and attended lectures and received his degree in medicine at the University of Pennsylvania in 1841. His graduating thesis was on the subject of phthisis pulmonalis. Immediately after, he opened an office in Philadelphia, where he has ever since continued to reside, actively engaged in practice. In 1843 he became a member of the College of Physicians of Philadelphia. Dr. Townsend is now President of the

Philadelphia Fountain Society. He is married and has four children—Richard H., Charles H., Eugene and Pauline B. He attended the meeting of the American Medical Association, of which he has been a member since 1848, at San Francisco, Cal., in 1871. On this trip he was accompanied by his son Charles. He is also a member of the Northern Philadelphia Medical Society; of the Pennsylvania State Medical Society, and an honorary member of the California State Medical Society. The Doctor has acquired a competence, and lives in the style of a gentleman of cultivated mind and refined tastes, with a good library, and surrounded by all the accessories that make life charming and agreeable.

WEATHERLY, JOB SOBIESKI, M. D., of Montgomery, Ala., was born in Bennettsville, Marlborough Co., S. C., July 8, 1828. His grandparents on the maternal side emigrated from Scotland to South Carolina, and his grandfather served in Marion's Division of the American Army during the Revolution. The Doctor was educated at Bennettsville High School. He commenced the study of medicine with Dr. Alexander McLeod in his native town, and after two years' reading, he went north, where he spent two years in attending lectures at the University of New York, and as a private pupil of Dr. P. A. Aylett, graduating in 1849. In July of this year he opened an office in Adairsville, Ga., but in August, 1851, he removed to Palmetto, in Coweta county, where he secured a good professional business. In January, 1857, he removed to Montgomery, where he still resides,

enjoying a large and responsible practice. He has always taken an active interest in medical organizations, county, State and national. His zeal is only equaled by his judgment, and the chief credit of the early and complete eradication of any sectional enmity that may have existed in the American Medical Association growing out of the war, and which very likely would have been magnified and perpetuated under less judicious counsel, is principally due to his management, he having been specially selected by Dr. Baldwin, President of the American Medical Association, for service in this connection. The Doctor has been active on various committees, both in the American Medical Association and in the Alabama State Medical Association. His report on Medical Education to the American Medical Association in 1872, was a suggestive and thoughtful paper. The previous year he made the same theme the subject of an address before the Medical Association of the State of Alabama. Whatever subject has been taken up by the Doctor has been ably presented and received the indorsement of the profession. He was united in marriage in 1852 to Miss Eliza G. Taliaferro. They have six children living—all boys. He is a member of the American Medical Association, having been its First Vice-President in 1871; of the Alabama State Medical Association, and its President in 1874; of the Montgomery Medical and Surgical Society, and its President for two years; and an honorary member of the California State Medical Society, and of the Gynæcological Society of Boston. Dr. Weatherly has contributed some valuable papers to the literature

of the profession, among which may be mentioned an article on Glossitis, published in 1853; on Puerperal Convulsions, in 1857, the principal point of which was the use of chloroform, and a condemnation of blood-letting; an Operation for Polypoid Tumor of the Uterus, published in the New Orleans *Journal of Medicine*; Diabetes and its Treatment, same journal; on the Opium Habit, published in Transactions of the Alabama State Association; on Medical Education, a report as Chairman of Committee of the American Medical Association; an Oration—subject: “Woman, her Rights and her Wrongs,” Alabama State Association; Letter from California; Hemorrhagic Malarial Fever, an address as President, delivered before the Alabama State Medical Association; in 1875, before the State Board of Health, etc., an able paper, of which one thousand copies were printed, at the expense of the Association, for general distribution; Minute Anatomy and Diseases of Cervix Uteri, and a paper on Prevention of Syphilis by State Action, both before the State Association of Alabama.

WILLIAMSON, JEFFERSON, M. D., of Ottumwa, Iowa, was born in Scott township, Adams county, Ohio, March 31, 1827. His education was obtained first at the common schools, and then for two years under the private instruction of Prof. Robert Buck, of West Union. His medical preceptor was Dr. H. G. Jones, and his degree of M. D. was received from the Medical Department of the Western Reserve College, at Cleveland, in 1852. In November of this year he settled to practice at Ottumwa, where he still re-

sides, and enjoys a good general practice, to which he has given his undivided attention. His trip to California was the most protracted respite from labor he had ever taken since he entered the profession. The Doctor has contributed some valuable articles to medical literature, which may be found in the journals and in the Transactions of the Iowa State Medical Society, among which I will name his papers on Insanity ; on Ovarian Cyst—Its Removal and Recovery ; on Vesico-Vaginal Fistula—with a case successfully treated ; and one on Uterine Fibroids. He was elected Vice-President of the Iowa State Medical Society in 1865, and President in 1873. He is now the Permanent Secretary of the Des Moines Valley Medical Association. He is besides a member of the American Medical Association, and an honorary member of the California State Medical Society.

Dr. Williamson is a vigorous writer, an independent thinker, and an extensive reader of works of science and philosophy, and takes an active interest in all questions pertaining to the welfare of human society. He was united in marriage in 1852, to Sarah A. Jones, of Wilmington, Ohio. They have no children except an adopted daughter.

WINSTON, GUSTAVUS STORRS, M. D., of New York City, N. Y., was born there February 15, 1835. His education was chiefly obtained at Mr. D. P. Bacon's School for Boys, and at Columbia College in that city. His medical preceptor was Dr. C. R. Agnew. After attending the usual course of lectures he graduated from the College of Physicians and Sur-

geons in 1863. He at once opened an office in the city, where he still resides. He is at present connected with the New York Mutual Life Insurance Company. In 1874 he prepared and published a little volume on the statistics of mortality furnished by the records of the company from 1843 to 1874. He was for five years Interne Physician to the Woman's Hospital; also one of the Visiting Physicians to the Demilt Dispensary, to the Outdoor Department of Bellevue Hospital, to the New York Hospital, and to the Woman's Hospital. During the late war he served as a Surgeon, and was taken prisoner at the first battle of Bull Run. He was on duty in the Central Park Hospital, New York City, in 1863 and 1864. He is a member of the New York Academy of Medicine, of the New York County Medical Society, of the New York Obstetrical Society, of the Medical Journal Association, and a permanent member of the New York State Medical Society. He was a Delegate to the American Medical Association in 1871, and attended the meeting in San Francisco. He is also an honorary member of the California State Medical Society.

WISE, THEODORE NATHANIEL, M. D., of Covington, Ky., was born at Alexandria, Va., June 29th, 1817. His ancestors were among the first settlers in that city. His education was obtained at the Academy in his native place, and from private tutors. Dr. Wise pursued his professional studies under the direction of Dr. Daniel Drake, of Cincinnati, Ohio. He attended three courses of medical lectures, begin-

ning in the year 1833, at the Cincinnati Medical College, when Drake, Gross, Parker, Rives, Harrison, McDowell and Rogers were filling its chairs, and obtained the degree of M. D. in March, 1837. In March the same year he opened an office in Covington, where he has ever since continued in the active duties of his profession. Forty years ago, when he settled in that city, it had a population of about eight hundred; it is now a city of thirty-five thousand. Cincinnati then had a population not over thirty-five thousand souls; now it contains three hundred thousand. The Doctor was a delegate from the Kentucky State Medical Society, of which he was at that time President, to the American Medical Association, which met at San Francisco, in 1871. His wife accompanied him on the trip, and they visited all the noted places *en route*, and in California, and were deeply impressed with the grandeur of the scenery—surpassing, as he thought, the grandest of the Old World, which he visited with his wife in 1865. While President of the Kentucky State Medical Society, Dr. Wise delivered a well-considered and able address, comparing the advantages of his own and other countries in a medical aspect. He is a member of the Covington and Newport Medical Society—was one of its original members, and has served as its President on several occasions; of the American Medical Association since 1867; and an honorary member of the California State Medical Society. He has held the position of Grand Master of the Grand Lodge of Masons of his State, of Grand High Priest, and of Grand Commander of Knights Templar, and has served his city for six years

as President of the Board of Public Education. In the year 1837 he was married to Missouri Arnold, who died in 1847. One son, James Seaton Wise, is still living, who was educated in Dublin, Ireland, and obtained his medical certificates in Edinburgh, Scotland, 1866. The Doctor married his second wife, Catherine B. McGill, in 1852, who is still living and in good health. In the last ten or twelve years the Doctor and his wife have traveled extensively in his own and foreign lands, but he is still actively engaged in his professional calling.

WOLCOTT, SAMUEL GARDNER, M. D., of Utica, N. Y., was born at Hanover, Plymouth Co., Mass., January 1, 1820. He prepared for college at Phillips' Academy, Andover, Mass., and graduated at Trinity College, Conn., 1847. His medical studies were commenced in the office of Dr. Winslow Lewis, of Boston, and, after attending the usual course of lectures in the Medical Department of Harvard University, he received his diploma of M. D. in 1850. The same year he opened an office in Utica, N. Y., where he still resides, and is engaged actively in the general practice of medicine and surgery. Gradually his attention became more directed to the latter, and for years a large city and country practice has so completely occupied his time, that whatever yearnings he may have had for literary labor, they have been crowded aside for the more imperative duties of the profession. In the early part of the war, he was appointed a member of the Special Corps of Volunteer Surgeons from the State of New York, and was on duty until

the restoration of peace. In 1866 he visited South America and traveled extensively through Brazil, making and recording his observations, and collecting specimens in botany and the natural history of the country. Unusual opportunities were presented him by the Emperor for the study of leprosy, which he fully availed himself of. In 1871 he was a Delegate from the New York State Medical Society to the American Medical Association, and attended the meeting at San Francisco. After the convention adjourned, he occupied the season in traveling through the country, and visited the places of interest in California and the territories. He is a permanent member of the American Medical Association; of the New York State Medical Society; of the Oneida County Medical Society, and an honorary member of the California State Medical Society. In 1854 he was united in marriage to Caroline, daughter of Hon. Thomas H. Hubbard, of Utica. She died in 1867, leaving four children—Mary Hubbard, Sarah Gardner, Alice Denio and Frederick Hubbard. The Doctor was united in a second marriage, in 1872, to Emily Pierrepont, daughter of Hon. William C. Pierrepont, Pierrepont Manor. He is still engaged in active practice.

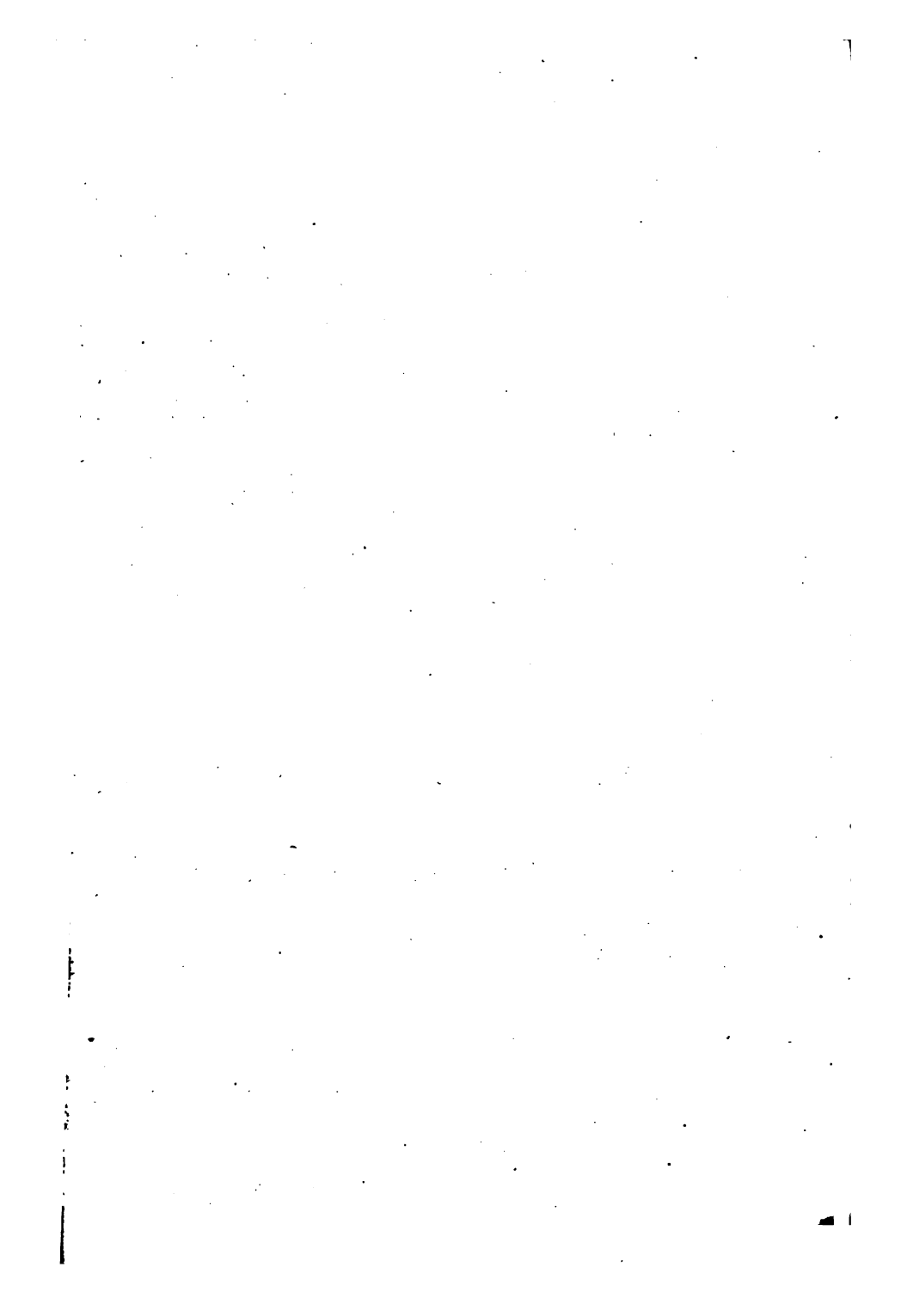
WOODRUFF, WILLIAM, M. D., of Thomaston, was born at New Haven, Conn., July 18, 1804. His American ancestry settled in Farmington as early as 1641. His father, Gideon, was a physician, and graduated from Yale College in 1785; he practiced medicine in Plymouth over forty years. The subject of this sketch studied medicine with Dr. Jonathan Knight, and subsequently with Dr. Nathan Smith. He at-

tended lectures at Yale College, and graduated M. D. in 1826. He afterwards attended another course of lectures at the College of Physicians and Surgeons, New York city. He began practice in Plymouth, Conn., afterward removing to that part of the town now called Thomaston, after its great clock manufacturer, Seth Thomas, a custom of frequent occurrence in the history of New England. In the early years of his practice the doctor was very laborious and devoted to his professional duties. Dr. Woodruff promptly connected himself with the County and State Medical Societies, and occasionally made contributions to them, but has been known rather as a worker than as a writer. Having secured a reasonable competence and years accumulating upon him, he has gradually withdrawn from the more active duties of the profession, and has become somewhat of a traveler both abroad and in our own country, especially during the winter months, which he spends in the balmy atmosphere of the Southern States. As a delegate of the Connecticut Medical Society he attended the meeting of the American Medical Association in San Francisco, in 1871. After the meeting adjourned he spent some time with a number of his professional brethren in visiting the various places of interest on the Pacific coast, and in the subsequent autumn sailed for Europe. He was united in marriage to Martha Thomas, since deceased, daughter of Seth Thomas, of "time-keeping fame." The Doctor has two children now living—William T. and Sarah H.

YANDELL, DAVID W., M. D., of Louisville, Ky.

ZITZER, J. J., M. D., of Cumberland County, Pa.





the 1990s, the number of people in the world who are undernourished has increased from 600 million to 800 million (FAO 1996).

There are a number of reasons why the world's population is becoming more undernourished. First, the world's population is growing rapidly, and the number of mouths to feed is increasing. Second, the world's food production is not keeping pace with the growing population. Third, the world's food distribution is uneven, with some areas having a surplus and others a deficit. Fourth, the world's food quality is poor, with many people suffering from malnutrition. Fifth, the world's food prices are high, making it difficult for many people to afford food. Sixth, the world's food systems are inefficient, with a lot of food being lost or wasted. Seventh, the world's food systems are unsustainable, with the use of fertilizers and pesticides degrading the environment. Eighth, the world's food systems are vulnerable to climate change, which is increasing the risk of food shortages.

There are a number of ways to address the world's food problems. First, we need to increase food production. Second, we need to improve food distribution. Third, we need to improve food quality. Fourth, we need to reduce food prices. Fifth, we need to reduce food waste. Sixth, we need to make food systems more sustainable. Seventh, we need to make food systems more resilient to climate change.

One of the most important ways to address the world's food problems is to improve food distribution. This means ensuring that food is available to all people, regardless of their location or income. This can be done by improving infrastructure, such as roads and bridges, and by supporting local food systems.

Another important way to address the world's food problems is to improve food quality. This means ensuring that food is safe and nutritious. This can be done by improving food safety standards and by supporting local food systems.

A third important way to address the world's food problems is to reduce food prices. This means ensuring that food is affordable for all people. This can be done by supporting local food systems and by reducing food waste.

A fourth important way to address the world's food problems is to reduce food waste. This means ensuring that food is not lost or wasted. This can be done by improving food storage and distribution systems and by encouraging people to eat less food.

A fifth important way to address the world's food problems is to make food systems more sustainable. This means ensuring that food systems do not degrade the environment. This can be done by using sustainable farming practices and by supporting local food systems.

A sixth important way to address the world's food problems is to make food systems more resilient to climate change. This means ensuring that food systems can withstand the effects of climate change. This can be done by using climate-resilient farming practices and by supporting local food systems.

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